



Llywodraeth Cymru
Welsh Government

Wales Infrastructure Investment Strategy



Contents

1	Chapter 1: Ministerial Foreword
3	Chapter 2: Strategic approach to financing investment in infrastructure
3	Overview
4	Economic Outlook
7	Public Finances
8	A long-term vision
8	Prioritisation of funding
9	Approach to capital levers – Hierarchy
14	Chapter 3: Cross Cutting Principles
16	Thematic Approach and delivery against multiple outcomes
19	Overarching commitment to tackling the climate and nature emergency
19	Embedding Social Justice
20	Placemaking
21	Investment in new infrastructure vs maintenance of existing infrastructure
22	Resilience to future trends
22	Procurement

23	Chapter 4: Environmental Well-Being
23	Overview
24	Decarbonisation and greenhouse gas reduction
26	Investment in Biodiversity and Natural Capital
29	Improvements in air and water quality
31	Reduction in unsustainable consumption of natural resources
33	Chapter 5: Social Well-Being
33	Overview
33	Improving and protecting the physical health, safety and well-being of the people of Wales
37	Improving and protecting the mental health and well-being of the people of Wales
38	Reducing Social inequalities
40	Improving Access to key public services
42	Chapter 6: Economic Well-Being
42	Overview
43	Help to increase employment levels across Wales
44	Help to improve business productivity
46	Increase real household incomes
48	Improve educational outcomes

49	Chapter 7: Cultural Well-Being
49	Overview
49	Improve access to and increase use of the Welsh Language
50	Encourage access to and participation in cultural activities, including the arts and heritage
52	Improve participation level in sport and recreation
53	Improve investment in communities across all parts of Wales
54	Chapter 8: Delivery of the Wales Infrastructure Investment Strategy
54	Overview
54	Welsh Government delivery of the Strategy
56	Working with our partners
59	Private Sector
63	Annex A: Review of 2012 WIIP

Chapter 1

Ministerial Foreword

The last two years have been amongst the most challenging Wales has ever known. Coronavirus has had a profound impact on almost every aspect of our lives from the way we protect our most vulnerable to the way we work, the way we travel, to the way we provide public services.

While the threat of Covid has not yet passed, now is time to look forward – to how we can re-build after the pandemic and tackle the other great challenges we face as a society – challenges just as existential and just as threatening as Covid itself: the climate crisis and the urgent threat to our natural environment and the corrosive impact of inequality on individuals and communities to name just two.

At the start of the new Senedd term, the Welsh Government is committed to working with partners to play a leadership role in addressing those challenges to support the development of infrastructure across Wales that can help foster the greener, fairer and more prosperous country we all want to see.

To help us in this work we will lean on the important tools we have developed over the last decade to bring about radical change the most important of which is the transformative Well Being of Future Generations (Wales) Act which places a legal obligation on public bodies, including the Welsh Government, to deliver investment in a way that enhances the Environmental, Social, Economic and Cultural Well-Being of the people of Wales.

We will use the flexibilities provided through the Wales Act 2017 which increases the responsibilities, taxation powers and capital borrowing capacity of the Welsh Government to be more creative in the way we develop and fund infrastructure investment.

And we will use our collective and legal commitments to achieve net zero emissions by 2050, to set a clear pathway for infrastructure investment strengthened by the commitment in our Programme for Government for this 10-year strategy to support a zero-carbon economy.

Against the backdrop of all these changes, the combined impact of the Coronavirus pandemic, and the decision to leave the European Union has created a series of significant economic and wider challenges that could take decades to overcome.

We know that investment in the right infrastructure, in the right places is a critical lever to enable fair and sustainable growth. However, the rapidly changing context requires a different approach to our strategic framework for investment in infrastructure in this document – our new “Wales Infrastructure Investment Strategy” which we launch today.

Instead of thinking first “what infrastructure should we invest in?” the question must be “what should investment in our infrastructure enable?”. In line with the Well-Being of Future Generations Act (Wales), this strategy sets a series of outcomes, brigaded under the four well-being domains – Environmental, Social, Economic and Cultural Well-Being – that investment in infrastructure can deliver. Whilst the outcomes we are trying to achieve are structured in this way, it is crucial we recognise that investment in a particular infrastructure sector should deliver benefits against multiple outcomes.

It is essential that the role which infrastructure plays is maximised, and that we have the infrastructure in place to support the Wales we want to hand on to future generations. This strategy puts in place the framework to ensure that happens, and ensure that our investments are targeted at those interventions that most effectively deliver our wider ambitions. It is now down to us collectively – as a Government, as a wider public sector, and as private investors – to ensure that the progress that we make over the next ten years matches the scale of the challenges we face.



Rebecca Evans MS

Minister for Finance and
Local Government

Chapter 2:

Strategic approach to investment in infrastructure

Overview

1. Net Zero Wales is very clear that this must be the decade of action in terms of tackling climate change in Wales. That is why, in addition to the outcomes in this document structured around the well-being domains, we are setting a series of “cross-cutting principles” – and recognition of our overarching commitment to tackling the climate and nature emergency is at the heart of those. Whilst the primary purpose of investment in infrastructure will differ from sector to sector, and from programme to programme, we will look to position all our ongoing and future infrastructure investments to play their part in achieving our reduction requirements and offer positive action for nature.

2. The outcomes in this strategy must remain relevant for its 10 year lifespan – and far longer given that the infrastructure we invest in now will in many cases be with us for decades – and yet the evidence base, technological solutions, and even our funding envelopes are changing on a much shorter timescale. For this reason, the outcomes in this strategy have been set without reference to specific infrastructure programmes or projects.

3. Our first Infrastructure Finance Plan (IFP) is being published alongside this strategy today, which identifies the key capital programmes that most effectively deliver the outcomes in the Wales Infrastructure Investment Strategy (WIS) over the financial years 2022-23 to 2024-25. The allocations set out in the IFP are aligned to the 2022-23 draft Budget, and we are taking the opportunity of a three-year capital settlement from the Spending Review to provide some much-needed certainty to our stakeholders and delivery partners. By setting a three-year delivery plan to underpin the strategy, we retain the ability to review and adapt our investment plans for future spending rounds in light of what evidence tells us are the most effective interventions.

4. Whilst the strategic context has changed significantly since our original Wales Investment Infrastructure Plan (WIIP) was published in 2012, similar financial challenges remain. At that point, the then Minister for Finance and Leader of the House highlighted the “*deteriorating capital funding position that has resulted from the UK Government’s severe budget cuts*”...requiring...“*step change in the efficiency, economy and effectiveness of our spending*” and “*the most challenging economic and political climate since devolution*”.

5. Much of this remain true today. The first IFP sets out what the outcome of the Spending Review means for Wales, and our ambitious investment plans. In practice, the need to maximise our capital levers and the benefit those levers can deliver remains as pertinent today as it did in 2012. In Chapter 2, we set out our strategic approach to deployment of the capital levers within our control, including our borrowing capacity and innovative finance mechanisms, and our continued ask of the UK Government to ensure that we have flexibility within our budgeting processes to manage our multi-year investment programmes in the most effective way for Wales.

6. Within this strategy, we are taking as broad a view of “infrastructure” as possible, ranging from the traditional built environment, to “green” and “blue” infrastructure, such as our woodlands and natural flood management investments. We also recognise that our capital support for businesses results in infrastructure investment in Wales, even if not “owned” by Welsh Government, and so our economic development programmes are reflected within this strategy too.

7. To achieve the outcomes within this strategy will take more than just Welsh Government investment, and the delivery chapter sets out how we will use our broader levers to ensure that investment in infrastructure by other public bodies and the private sector is also aligned to the ambitions of the WIIS.

8. Whether public or private, infrastructure investment – whilst a crucial lever – is only one part of the solution to delivering the ambitions of this government. This strategy must therefore be viewed in conjunction with the other levers that the Welsh Government holds, and also the levers that are not within our direct control. For example, our investment in our skills base is crucial to driving economic growth, and our investment in mental health service provision will play a significant role in improving health outcomes. Equally, the prohibition of the sale of new fossil fuel cars from 2030 by the UK Government will be a key lever to drive modal shift and decarbonisation of the grid will play a primary role in reducing residential carbon emissions.

Economic Outlook

9. Recent economic developments have been dominated by the pandemic. However, infrastructure must be designed to reflect long run trends, so the implications of the pandemic relate mainly to the extent that it has accelerated, or even changed, those trends.

10. Since the industrial revolution, across Wales and the rest of the UK, there has been a persistent trend for people’s real incomes to increase. Over recent decades, but prior to the financial crisis of 2008, the rate of increase had been around 2% each year on average. However, the rate of growth has slowed markedly since the financial crisis.

11. The long run growth in income has been driven by continuing productivity improvements, reflecting in turn continuing innovation, which is the ultimate driver of increases in living standards.

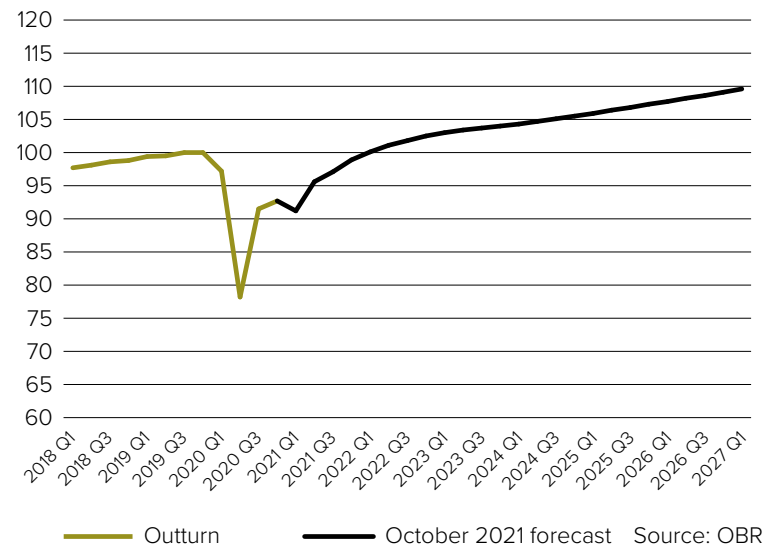
12. All mainstream forecasters, including the Office for Budget Responsibility (OBR), expect growth to continue over the long term. The OBR, in particular, assumes a long run rate of productivity growth of 1.5% per year for the UK as a whole. This is a reduction from its previously assumed rate of 2.0%, reflecting the experience since the financial crisis.

13. However, the trajectory that the economy will follow, particularly, over the short to medium term, are matters of great uncertainty. In their most recent forecast (October 2021) the OBR expects the next few years to be a period of slow growth in the economy and in living standards across the UK for a variety of reasons, including the effects of inflation and tax increases.

14. Despite its well-known limitations as a measure of well-being, GDP (the total value of goods and services produced in an area) remains a key indicator of overall economic performance. Increases in GDP mainly reflect productivity improvements, which over the long run, creates the potential for increase in real wages and in the tax base.

15. The most recent OBR forecast for UK GDP is shown in Chart 1.

Chart 1: OBR October 2021 GDP forecast



16. On the OBRs central scenario – the forecast shown in the chart – GDP is expected to regain its pre-pandemic level in 2022, and then resume growing close to the assumed long-run rate of productivity growth, albeit from a lower base than would have been expected prior to the pandemic.

17. There are no official economic forecasts for Wales. However, the economy in Wales is deeply embedded in the wider UK economy, and Welsh economic outcomes are strongly influenced by UK-wide developments, particularly over the short to medium term. The economic policy levers held by the Welsh Government operate mainly over the longer term.

18. The OBR have confirmed that, when expressed on a “per head” basis, over the medium term, the path followed by the economy in Wales is similar to that for the UK as a whole, albeit with random, but offsetting, fluctuations.

19. In addition to the pattern of recovery from the pandemic, major uncertainties about the longer run trajectory of the economy include:

- prospects for productivity growth over the longer run, where, as noted above, growth across the UK (and to some extent other countries) has been exceptionally weak since the financial crisis;
- the implications of the UK leaving the European Union and the transition to new trading relationships, where there is a broad consensus amongst independent experts that this will result in slower growth than otherwise;
- an aging population, which, across much of Wales, could, in coming decades, lead to an actual decline in the numbers of people, particularly those aged 16-64, with potentially adverse implications for productivity and the tax base;
- the consequences of the adoption of new technologies, including those needed to decarbonise the economy.

20. In respect of climate change in particular, analysis by the Climate Change Committee and the OBR has demonstrated that, provided appropriate policies are put in place, it is possible to combine decarbonisation with the long run increase in productivity that is necessary to deliver higher standards through increased real wages and a growing tax base.

21. One major consequence of the pandemic appears to be an acceleration in the adoption of technologies and working practices that were in any case gradually increasing in prevalence. Most notable, of course, has been the growth in “remote” economic activity, particularly working remotely, but also in retail and commerce more generally.

22. The extent of the lasting change remains uncertain, with most analysts assuming that some partial reversal is likely, with many employers proposing a “hybrid” model of working for the future.

23. Recent analysis indicates that, at present, around one-fifth of jobs could be performed entirely on a remote basis. These “anywhere jobs” are often relatively highly-skilled and well-paid posts, predominantly in the business services sector¹.

24. The OECD has recently considered the implications of the trend to remote working on the spatial distribution of economic activity². Key conclusions include:

- The possibility of working remotely opens up new opportunities for places outside large cities to reach new markets and attract new residents and firms.
- However, a major exodus from cities is not generally expected as more dynamic and attractive centres are reinventing themselves, with, for example, a move away from retail and towards leisure based activities.

- There may be more risks for less attractive urban areas.
- Various settlement patterns could emerge in the post pandemic period due to the increased adoption of remote working. The changes, which could occur in combination, include:
 - structural changes from a permanent movement of high skilled workers outside city centres;
 - expansion of commuting zones around cities as a “doughnut” effect;
 - intermediate cities becoming increasingly attractive;
 - business-as-usual but with greater adoption of remote working.

25. The policy responses suggested by the OECD include:

- Reducing digital divides and facilitating the adoption of remote working across regions, workers and firms by investing in ICT connectivity and associated skills.
- Improving the attractiveness and accessibility to quality services of places, particularly in non-metropolitan regions, by providing co-working spaces, high quality childcare, effective transport networks and affordable housing.
- Ensuring the outcomes from remote working are efficient and environmentally sustainable by appropriate land use policies and adapting public transport infrastructure.

26. The OECD’s analysis suggests potential opportunities for Wales, as well as risks. In particular, the attractiveness of the Welsh environment could make it an increasingly desirable place for people to live and work.

¹ See: Anywhere jobs and the future of work | VOX, CEPR Policy Portal (voxeu.org)
www.voxeu.org/article/anywhere-jobs-and-future-work

² See: Executive Summary | Implications of Remote Working Adoption on Place Based Policies: A Focus on G7 Countries | OECD iLibrary (oecd-ilibrary.org)
www.oecd-ilibrary.org/sites/b12f6b85-en/index.html?itemId=/content/publication/b12f6b85-en

27. The precise implications of more remote activity for transport use and housing demand are unclear. For example, people may seek to live in larger houses in less accessible locations, with increasing trip distances, and perhaps energy use, even if the total number of trips is reduced. Overall effects could go either way.

28. As the jobs most suited to remote working are on average in better paid occupations, and many lower paid jobs are in locally consumed services in urban centres, there is a clear risk that the move to more remote economic activity could serve to further increase inequalities, exacerbating the effects of welfare changes being imposed by the UK Government.

Public Finances

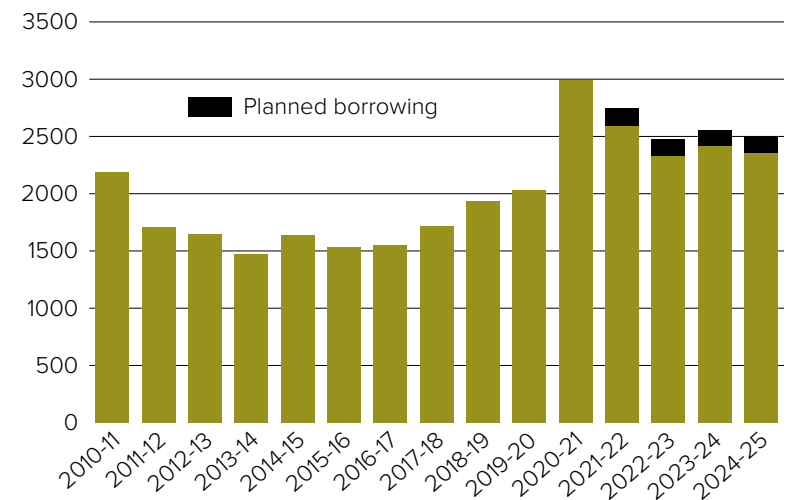
29. The outcome of the UK Government's Spending Review was published on 27 October, covering the three financial years from 2022-22 to 2024-25 for both resource and capital expenditure. It provides budget limits for UK Government departments and the block grant amounts for the Devolved Administrations.

30. The UK capital totals are much as set out in the UK Government's March 2021 budget. The resource totals are considerably higher, partly due to the additional revenue from the National Insurance increase and then Health and Social Care Levy announced in September. The general outlook for tax revenues has also improved since the March Budget, allowing for greater public spending while still reducing the future profile for borrowing.

31. As a result of these developments, there is a sharp increase in the Welsh Government's resource budget in 2022-23 compared to core funding in the current year. However, compared to total funding including COVID programmes this year, the resource budget is still down somewhat over the next few years.

32. The medium term outlook for the Welsh Government's capital budget is constrained. As shown in chart 2, the general capital budget over the next 3 years will be around £2.5bn in real terms. This is lower than in the current year or last year. However it is higher than during the austerity years of the previous decade, having now recovered to a level above that in 2010-11. The Budget for Financial transactions, not shown in the chart, is set at £265m in 2022-23 and then falls to £96m and £90m in the following 2 years.

Chart 2: Welsh Government General Capital Budget
£million, real terms 2020-21 prices



33. As part of its October budget the UK government set out its new fiscal rules, with a mandate to have public sector net debt as a percentage of GDP falling by the third year of the rolling forecast period. In addition to this, the UK Government has a target to ensure that public sector net investment does not exceed 3% of GDP on average over the Office for Budget Responsibility's rolling forecast period.

34. The UK budget shows net investment at 2.7% of GDP at the end of the spending review period in 2024-25 and at the same level up to 2026-27. With little headroom available relative to the target, it is unlikely that net investment will grow much more quickly than GDP beyond the SR period. This suggests that medium term growth in the Welsh Government's capital budget will also be unlikely to exceed GDP growth – around 1.5% to 2% a year in real terms.

A long-term vision

35. This Strategy sets out a vision for what investment in Wales' infrastructure needs to enable over the next 10 years, whilst being mindful of the fact that the legacy of the investment decisions that we take over the next decade will be with us for far longer.

36. The lead-in time for the development of major infrastructure projects can be significant, and lack of long-term certainty in terms of committed funding can be a brake on investment. Whilst the current fiscal framework means that we are largely dependent on consequential funding as a result of UK Government budgetary events, **where possible, we will provide longer term certainty in terms of our capital ambitions.**

37. In the first instance, we are taking the opportunity of a 3-year Spending Review covering the financial years 2022-23 to 2024-25, to set out the investments needed over that period to start to deliver on the outcomes specified in this Strategy. The first IFP has been published alongside this Strategy, which is aligned to the draft Budget 2022-23. The delivery chapter of this Strategy sets out in more detail the process through which the first IFP has been developed.

38. The investments set out in the IFP have been established following a zero-base review of our existing capital plans, and reflect the priorities established in the Programme for Government as well as delivering against the outcomes in this Strategy. **In setting three-year capital budgets now, we are ensuring that our partners in both the broader public and private sectors can have confidence in our commitment to those infrastructure interventions.**

39. We will also consider how best to revise the Project Pipeline Updates to ensure they still remain as relevant to our partners and stakeholders as they have over their 10 years of publication.

Prioritisation of funding

40. As established above, the longer-term outlook for public finance is bleak, and in order to maximise the benefits that our infrastructure investment can bring we must ensure that our funding decisions are correctly prioritised.

41. This Strategy sets out the long-term outcomes that investment should deliver over a 10-year period, and sets out our overarching commitments to tackling the climate and nature emergency, as well as embedding social justice. However, the mechanisms through which those outcomes are achieved will undoubtedly change over time, and our prioritisation approach must be equally adaptable to change.

42. How we allocate funding to capital projects is, and will continue to be, based on achieving the best value for the investment we make. With limited resources available, we will require a collaborative approach to deliver integrated solutions, which are long-term, low-carbon and have a focus on prevention or are revenue-releasing.

43. We also recognise the inter-dependence of what we deliver and the fact that achieving one objective can have a positive impact on other objectives. We will continue to ensure that our investments are aligned across sectors taking all opportunities to maximise cross cutting opportunities.

44. We recognise that different parts of Wales have different economic strengths and needs, which change over time. Our approach to allocating capital will continue to ensure that we achieve the best value for the investment, maintaining our outcome-driven and evidence-based prioritisation of schemes to promote the best use of available resources.

45. We must also ensure we strike the correct balance of funding to maintain our existing infrastructure while continuing to invest in new infrastructure to deliver on our emerging priorities.

46. The current basis for investment decisions in WG is through the utilisation of the five case model, the UK public sector best practice approach to developing business cases, linked to the HM Treasury “Green Book” guidance on decision making. This provides a range of opportunities through which social policy objectives can be considered as part of the business case approach.

47. The recent review of the Green Book has been helpful in emphasising that value for money can only be delivered by projects that best meet WG policy objectives and that it is entirely appropriate to consider benefits in qualitative terms where they cannot be quantified or monetised.

Approach to capital levers – Hierarchy

48. We will continue to follow our well-established principle which underpins the use of capital in Wales, fully utilising the least expensive forms of capital before using other sources of repayable capital.

49. We will always use conventional capital, including financial transactions capital first before we use any of our borrowing powers. Innovative models, including private investment in projects, will only be considered on projects that are low risk and of the appropriate scale.

50. Any planned borrowing comes with a cost and must be carefully considered, taking in to account the opportunity costs presented and the pressure this will place on the Welsh Government’s budget.

General Capital – Block Grant

51. The block grant is the element of our funding which comes directly from the UK Government. Once the block grant has been determined, we have freedom to make our own spending decisions in areas our devolved responsibilities.

52. The Wales Reserve was introduced in April 2018 as part of the fiscal framework arrangements to enable us to deal effectively with volatility arising from tax revenues by retaining unspent resources for use in future years. It replaces the previous budget exchange process. The Wales Reserve can hold up to £350m capital and revenue in total. Annual drawdowns are limited to £125m for revenue spending and £50m for capital spending. There are no annual limits for payments into the reserve.

Financial Transactions

53. Over the last decade, part of our capital settlement has been ring-fenced by the UK Government and provided in the form of Financial Transactions capital (FT). The use of this part of our settlement is therefore restricted and the majority is repayable to HMT. The restrictions mean that FT can only be used for investments that generate a return and only for the purposes of loans to third parties and equity investments in third parties.

54. Eligible ‘third parties’ are those where lending would not score against public sector net borrowing – therefore outside the Welsh Government accounting and budgeting boundary and outside of the Whole of Government Accounts Boundary.

55. Whilst we do not welcome the restrictions the UK Government has placed on part of our capital budget through the use of FT, **we are committed to using every pound available to invest in infrastructure and boost economic growth in the long-term** and we will continue to seek to identify all opportunities to invest FT in the most effective way possible.

Tax

56. The Welsh Government is primarily funded by a block grant from the UK Government. However, in the past four years the devolution of tax powers – Welsh Rates of Income Tax, Land Transaction Tax, Landfill Disposals Tax and the financial devolution of Non-Domestic Rates – have ensured some 17% of Welsh Government spending was funded in 2021-22 from tax revenue.

57. This does not result in an increase in our available resource as there is a reduction in the funding received from the block grant by an amount comparable to the forecast tax revenue foregone by the UK Government.

58. While we continue to press for further strengthening of fiscal devolution we recognise that not all currently reserved taxes should be devolved to Wales. Some taxes are better suited to collection at a UK-wide level, particularly in regards to a successful UK single market.

59. The Welsh Government has five core tax principles which serve to ensure a consistent and strategic approach to tax policy development and delivery in Wales.

60. We will ensure Welsh taxes are managed in line with the tax policy framework, including:

- Raise revenue to fund public services as fairly as possible;
- Deliver Welsh Government policy objectives, in particular supporting jobs and growth;
- Be clear, stable and simple;
- Be developed through collaboration and involvement;
- Contribute directly to the Wellbeing of Future Generations Act goal of creating a more equal Wales.

Borrowing

61. The Welsh Government has an ambitious capital investment programme. Once we have exhausted these cheaper forms of capital we must look at more expensive and repayable forms of investment.

62. It is a reality that any form of borrowing has an impact on future revenue budgets, and we will always want to ensure that we are prudent in how this borrowing capacity is utilised. Based on current interest rates every extra £20m of borrowing costs an extra £3m over 25 years.

63. Even with historically low interest rates, utilisation of our borrowing powers is not free money. Repayments in future will reduce our spending capacity in the year in question, and therefore any use of borrowing powers needs to be carefully considered.

64. The cost of borrowing through the National Loans Fund (NLF) is at a standard rate, and is not dependent on the purposes for which it is borrowed. Welsh Government borrowing is not used to fund specific projects, but to increase overall spending capability, and to respond to emerging priorities.

65. The Welsh Government sets its planned capital borrowing through the annual budgetary process – and the investments in the first IFP published alongside this Strategy are based on maximising our borrowing of £450m over 3 years, as set out in the draft Budget. However, we face the continual challenge in recent years of receiving allocations of capital funding late in the financial year from the UK Government.

66. While we have welcomed additional funding, the long-term nature of infrastructure planning and investment means that it is simply not possible to deploy large amounts of capital funding shortly before the year end.

67. Coupled with the restrictions on our carry-forward limits, such allocations necessarily mean that we have to replace our planned borrowing with the additional funding, rather than expand our capital ambitions.

68. We will continue to push in our discussions with HM Treasury for the broader flexibilities that we need to manage our budget in the most effective way for the people of Wales. In particular, we will press for increases to both the annual and aggregate limits on our access to capital borrowing, as well as for greater year-end carry forward and drawdown flexibilities within the Wales Reserve.

Bonds

69. With the introduction of powers to issue redeemable bonds, the Welsh Government now has a broad suite of borrowing levers. However, whilst they increase the range of borrowing options available to the Welsh Government, bonds – in common with other forms of borrowing – must be repaid with interest and will have an impact on the revenue available to the Welsh Government to fund day-to-day public services.

70. Bonds remain more costly than any borrowing that we may access from the NLF and any funds raised by a Welsh Government bond would be counted against our borrowing limit.

71. However, the power to issue bonds is important as it means there is another way in which the Welsh Government can borrow money in the event that the UK Government decided to increase our cost of borrowing.

72. Should a future Welsh Government decide to issue Welsh bonds, consideration would need to be given to the mechanisms and processes required to manage them effectively.

Mutual Investment Model

73. The Mutual Investment Model (MIM) is an innovative way to invest in public infrastructure developed in Wales. MIM has been designed by the Welsh Government to finance major capital projects due to a scarcity of capital funding but does incur longer term revenue commitments.

74. Current MIM schemes will foster over a billion pounds worth of urgently needed investment in public infrastructure in Wales, whilst also delivering stretching community benefits.

75. The MIM will support additional investment in social and economic infrastructure projects and help to improve public services in Wales.

76. MIM schemes will see private partners build and maintain public assets. In return, the Welsh Government will pay a fee to the private partner, which will cover the cost of construction, maintenance and financing the project. At the end of the contract the asset will be transferred into public ownership.

77. When we have exhausted all other sources of financing and it is not enough to fund the infrastructure we need, we will consider investments using the Mutual Investment Model

Investment levers

78. The Development Bank of Wales (DBW) is a key part of the Welsh Government's strategy to support the economy of Wales by making it easier for businesses to get the finance they need to start up, strengthen and grow.

79. DBW's primary role is to act as a gap funder and address market failure when private finance providers are unable to meet the funding needs of SMEs. By its very nature public sector funding should be counter cyclical – providing much needed finance when other market providers scale back.

80. DBW is able to offer both debt and equity based finance solutions with a portfolio of funds relevant to businesses at different stages of their development and growth. The Development Bank is able to invest from £1,000 to £10m and beyond by exception, with options for short term as well as patient capital facilities.

81. We will continue to utilise DBW as a cornerstone economic development institution and provider of services to the Welsh Government to support the ambitions set out in this plan, recognising that DBW's offer has the potential to support business needs down through supply chains, helping businesses in Wales benefit from the opportunities which future capital investment provides.

82. There are many unknowns regarding the operation, scale and delivery of UK Government led regional development support mechanisms. The Welsh Government and DBW will work together to be responsive as new arrangements become established.

83. DBW will continue to work with, and support the Welsh Government, as it seeks to shape policy related to the replacement for European structural funds and will be working with WG to identify solutions which create the potential to increase the flow of funds into Wales – further developing its relationship with other investment providers such as the British Business Bank and UK Infrastructure Bank.

Replacement EU Funding

84. At the March 2020 budget, the UK Government committed to “match current levels of funding for each [UK] nation from EU structural funds”. The budget stated that a new UK Shared Prosperity Fund (UKSPF) would replace the “overly bureaucratic” EU structural funds, with funding “realigned to match domestic priorities, not the EU's”.

85. We have invested £375m of EU Structural Funding annually to deliver national programmes across Wales, including employability and apprenticeships, business support and local economic development. The potential loss of this funding significantly restricts our ability to invest in infrastructure in and for Wales.

86. To meaningfully address regional inequity, the UK Government must focus its effort on spending in reserved matters, including addressing historical underspending on rail infrastructure and research and development in Wales. The UK Government must also commit to fully fund the ongoing operations needed at the Welsh border following EU exit.

87. Wales was a net beneficiary of EU membership and **we will continue to call on the UK Government to replace, in full, all funding which Wales would have otherwise reasonably expected from EU sources.**

Chapter 3

Cross Cutting Principles

1. Our vision is a well-being economy which drives prosperity, is environmentally sound, and helps everyone realise their potential. Our economic well-being is without any doubt tied to our environmental, cultural and social well-being.

2. We are committed to putting Wales on a more sustainable path in line with our Well-being of Future Generations framework. Our infrastructure investments make a significant contribution to how we ensure that the needs of the present are met without compromising the ability of future generations to meet their own needs. This is the Sustainable Development Principle within the Well-being of Future Generations (Wales) Act 2015. The Strategy identifies those areas and outcomes we will prioritise in making a contribution to the achievement of the well-being goals.

3. A strategic framework for prioritising investment between infrastructure programmes can only be as effective as the proposals it is prioritising between. For investment decisions to be a fully effective lever in driving these changes, it is imperative that there is a radical and transformational change in the way that departments plan, design and develop their infrastructure proposals prior to submission for funding.

4. This chapter sets out the key overarching principles that the Welsh Government requires departments to embed within their infrastructure proposals. The demonstration of these core principles, as well as delivering against the more detailed strategic outcomes and actions established in the following chapters, must be viewed as a pre-requisite for funding.

Well-being domains, goals and ways of working mapped

National Well-being Goals for Wales						
A Prosperous Wales	A Resilient Wales	A Healthier Wales	A More Equal Wales	A Wales of Cohesive Communities	A Wales of Vibrant Culture and Thriving Welsh Language	A Globally Responsible Wales
Four domains of well-being and strategic investment outcomes						
Environmental Well-being	Social Well-being		Economic Well-being	Cultural Well-being		
Decarbonisation and greenhouse gas reduction	Improving and protecting the physical health, safety and well-being of the people of Wales		Help to increase employment levels across Wales	Improve access to and increase use of the Welsh Language		
Investment in Biodiversity and Natural Capital	Improving and protecting the mental health and well-being of the people of Wales		Help to improve business productivity	Encourage access to and participation in cultural activities, including the arts and heritage		
Improvements in air and water quality	Reducing Social inequalities		Increase real household incomes	Improve participation level in sport and recreation		
Reduction in unsustainable consumption of natural resources	Improving Access to key public services		Improve educational outcomes	Improve investment in communities across all parts of Wales		

Thematic Approach and delivery against multiple outcomes

5. The domain-based or ‘thematic’ chapters that follow, set the core outcomes that infrastructure investment in Wales should enable – and the subsequent delivery chapter sets out how we will use our full range of investment levers to contribute to delivering these outcomes.

6. We are committed to utilising infrastructure investment to improve Wales’ economic, social, environmental and cultural well-being, as defined through the well-being goals for Wales. To reflect the integrated and indivisible nature of Wales’ well-being, this Strategy is structured around these four domains.

7. The domains have been disaggregated into a series of strategic outcomes that set out in more detail what it is that investment in infrastructure must enable.

8. The role that investment in different sectors plays in delivering against these different well-being outcomes is then captured through the set of actions identified in this Strategy.

9. By taking a thematic rather than sectoral approach, we are able to recognise that whilst investment in a particular sector may deliver more strongly against one theme than another, in many cases there are clear secondary and tertiary purposes of investment that need to be captured effectively. This also recognises the interrelationships and intersectionality between different areas of infrastructure and the outcome they deliver.

Case Study

Active Travel

Investment in infrastructure that enables and promotes take up of Active Travel can take a number of forms – see gov.wales/active-travel-fund-grants-awarded-2021-2022.html for a list of Active Travel Fund grants made in 2021-22.

The primary purpose for investing in Active Travel infrastructure is to provide opportunities to make everyday journeys by walking and cycling, and through this improve the physical and mental health and well-being of the nation. Evaluation of completed programmes evidences a clear link between infrastructure that enables safe and convenient walking and cycling, and uptake of those activities for transport purposes, driving a range of health benefits including improved cardiovascular and respiratory health, as well as reduced rates of obesity, diabetes and cancer.

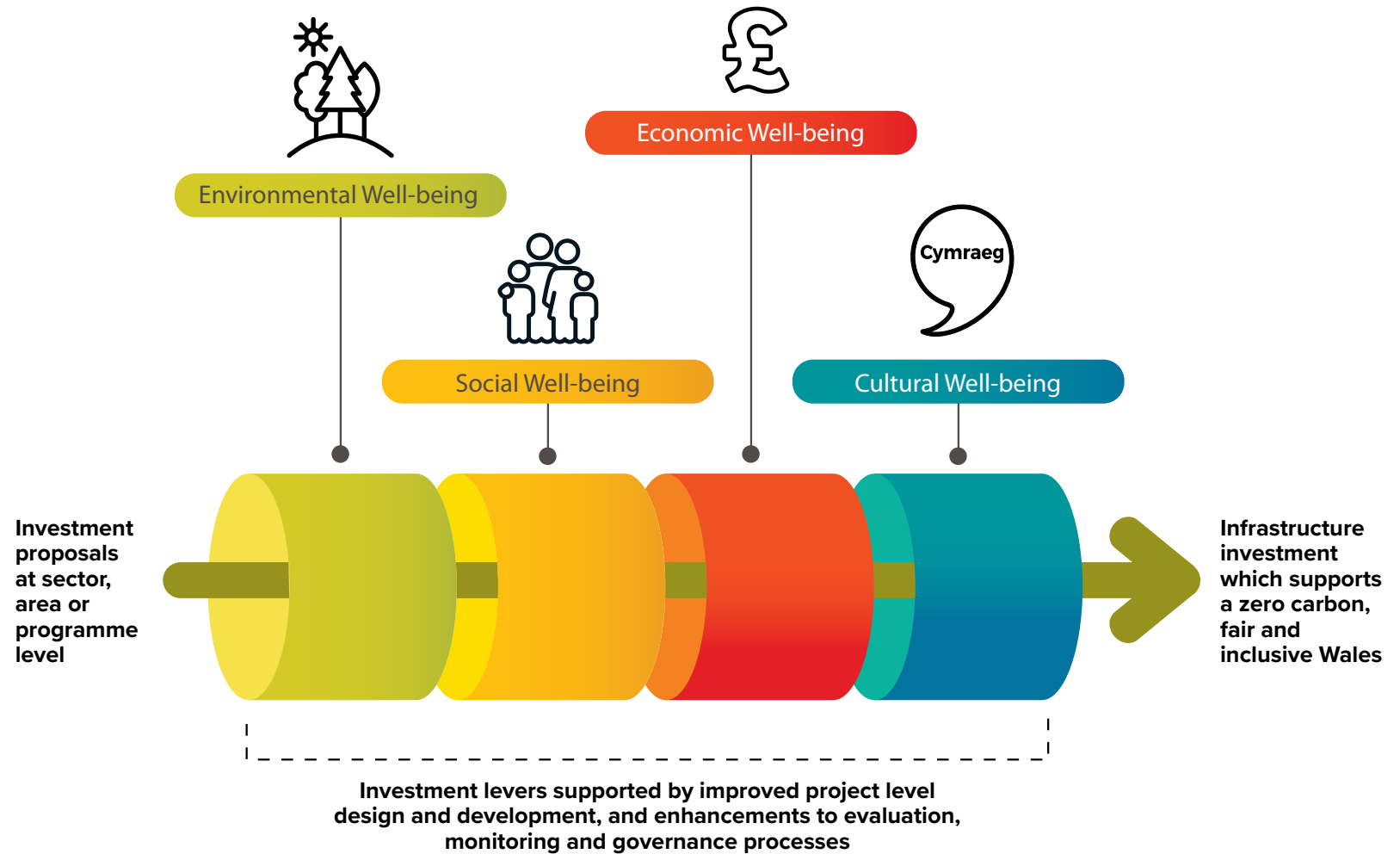
The declaration of the climate and nature emergency has ensured that our investments must all be viewed through a decarbonisation lens. Active Travel may not be the principal lever in driving modal shift away from fossil fuel vehicles, but studies show that significant ramp-up in cycling and walking expenditure could deliver cumulative emissions savings of 0.3-0.6MtCO₂ between now and 2040 – without taking into account the need for pre-emptive investment in infrastructure to capitalise on modal shift driven by other interventions, such as banning new fossil fuel powered cars in 2030.

Whilst walking and cycling are the cheapest forms of transport, we know there are significant differences in uptake, with disadvantaged groups less likely to utilise the infrastructure, despite a strong desire to do so. Therefore, there is a clear opportunity for investment in active travel infrastructure to play a role in ensuring that inequalities in access to opportunity are addressed.

Our investments in active travel are designed to promote walking and cycling for purposeful journeys, rather than purely for recreation, and so also have a key role to play in ensuring that they improve access to key public services. Statutory guidance requires active travel infrastructure investments to link up places where people live with public transport hubs, schools and employment sites, and our investments will follow suite.

In recognition of the various outcomes that investment in Active Travel can drive right across the well-being domains, the relevant actions have been integrated across the four domain chapters, rather than following a sectoral focus.

10. The diagram below illustrates how investment in different capital sectors are worked through the various well-being themes, with the cross-cutting principles and baseline requirements set out in this chapter.



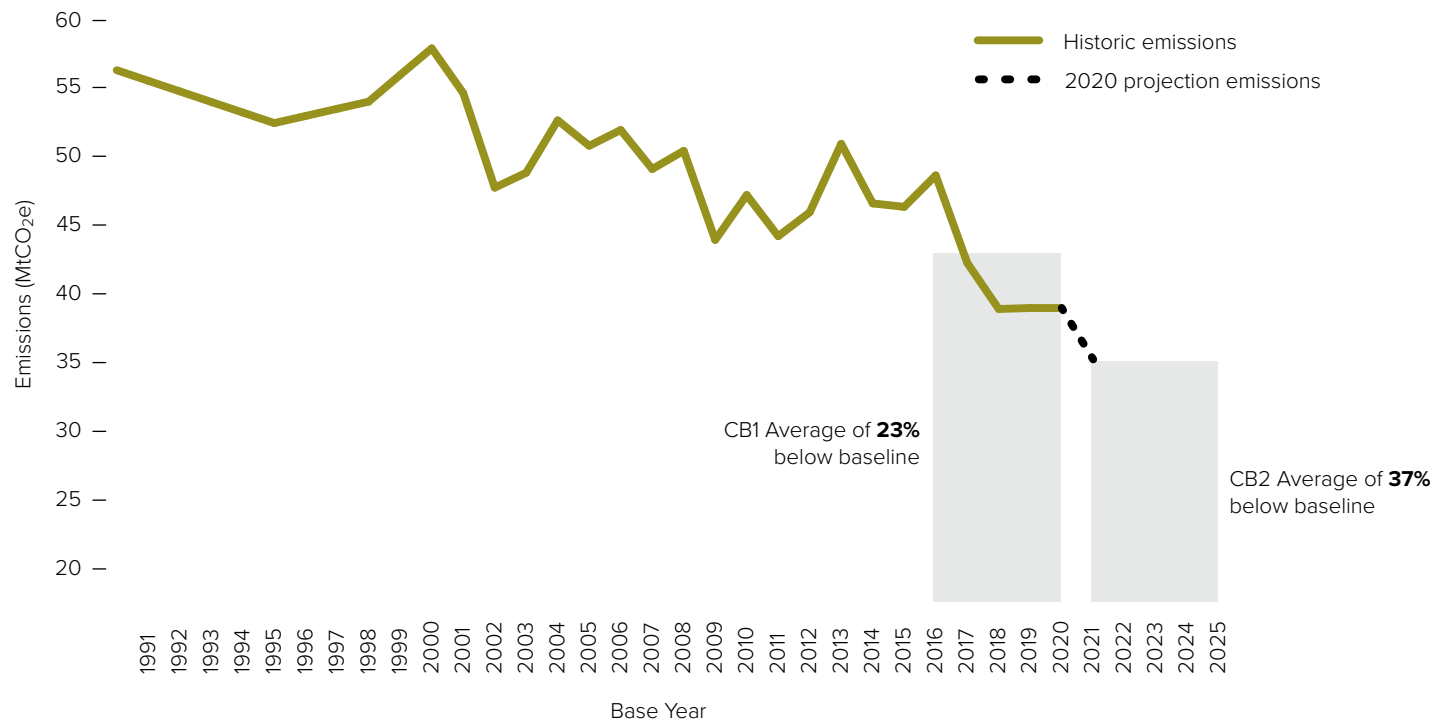
Overarching commitment to tackling the climate and nature emergency

11. Addressing the climate and nature emergency is the overarching ambition of this infrastructure investment strategy, which has been designed specifically to support the delivery of a zero carbon economy. Whilst we recognise that the primary purpose of investment in infrastructure will differ from sector to sector, and from programme to programme, our commitment to tackling climate change must run through investment in all sectors.

12. This mirrors the ambition set out in Net Zero Wales³, which sets out clearly that the 2020s must be the decisive decade of action. Our second carbon budget focuses on the need to “outperform” the recommended 37% average reduction in emissions, with a clear line of sight to a 58% average reduction through the third carbon budget up to 2030⁴.

13. Whilst there will be some investments which are directly designed to reduce carbon and greenhouse gas emissions, we need to position all our ongoing and future infrastructure investments to play their part in achieving our reduction requirements and offer positive action for nature.

Chart 3: Total Welsh emissions – historic and projection emissions



3 Second All Wales Low Carbon Delivery Plan (2021-2025) gov.wales/sites/default/files/publications/2021-10/net-zero-wales-carbon-budget-2-2021-25.pdf

4 Second All Wales Low Carbon Delivery Plan (2021-2025) gov.wales/sites/default/files/publications/2021-10/net-zero-wales-carbon-budget-2-2021-25.pdf Page 10

14. For example, investments in our education estate will need to deliver operational “Net Zero” carbon buildings whilst taking steps towards reducing embedded carbon in construction. Investment in the Health estate will need to deliver on the ambitious targets set out in the NHS Wales Decarbonisation Strategic Delivery Plan⁵, and in delivering flooding infrastructure to protect people, homes and business we must maximise our nature-based solutions to expand wetland and woodland habitats. And, in many cases, our museums, libraries and our heritage estate are in very old, inefficient buildings with inefficient systems, which create significant challenges in addressing decarbonisation. **In developing all infrastructure proposals, our response must embed our commitment to tackling the climate and nature emergency.**

15. Net Zero Wales makes clear that all future public sector properties being built or undergoing major refurbishment must achieve a net zero standard by 2030, building on existing funding, such as the £29m invested with the support of the Energy Service in 2020-21, in insulation, control systems, lighting, ventilation, low carbon heating, building integrated renewables and roof mounted solar projects within the public sector estate. **In developing all infrastructure proposals, our response must embed our commitment to tackling the climate and nature emergency.**

16. Chapter 2 of this Strategy sets out the funding challenges we are likely to face in the coming years. These will inevitably restrict our delivery capacity, and it will be crucial to ensure that in some cases, our resources are targeted at those interventions that deliver the most cost-effective way of tackling climate change. **When developing projects and programmes for investment under this Strategy, policy officials must carry out robust analysis as to the holistic impact on carbon emissions from proposed programmes.**

Embedding Social Justice

17. It is important to ensure that our infrastructure investments support an inclusive economy, which works for everyone. Our approach to infrastructure should embody those values of social justice, maximising fairness for all and eliminating inequality in all of its forms, recognising that people have different needs that infrastructure will need to reflect.

18. Many of our investments will have a direct impact on inequality – for instance, investing in schools or childcare infrastructure promotes better social outcomes for those affected. Even in these instances though, our infrastructure investments must reflect that the differing needs of, for example, different genders in line with our commitment to gender budgeting, which can require distinct solutions. However, it is important to ensure that all investments consider the need to reduce disadvantage – for instance by ensuring that our investments support a fully inclusive transport system and an economy, which works for the needs of all.

19. This is particularly important as we look to our collective long-term future following the coronavirus pandemic. The pandemic has exacerbated many of the existing inequalities in Wales, and brought into even clearer focus the need to address this over the next ten years, even where this requires a radical shift in approach. In this context we also recognise the gaps in evidence that need to be addressed, with the principle ‘that no evidence doesn’t equal no impact’ and the need to engage with those communities that are impacted by our investment. **Infrastructure investment programmes must embody the value of social justice and move to eliminate inequality in Wales.**

⁵ gov.wales/sites/default/files/publications/2021-03/nhs-wales-decarbonisation-strategic-delivery-plan.pdf

Placemaking

20. Infrastructure investment can play a key role in delivering the concept of “placemaking” – the planning, design and development and spaces, focused on positive outcomes. It is incumbent on spending departments to make sure that in planning infrastructure programmes, the key linkages are made across the different investment areas to maximise the opportunity to join up developments to deliver more than the sum of their parts.

21. The risk of developing infrastructure in silos is clear in terms of the missed opportunities to maximise the value of the outcomes from infrastructure investment. We must also recognise the interconnected way different people use public services where they live and work, and the potential disproportionate impacts on particular groups if this is not addressed.

22. These values can be within portfolio – for example by building strong partnership networks across the delivery chain and ensuring the capacity internally to shape and plan the portfolio. However, there is also value “between portfolios” – aligning the investment objectives and timing of projects across multiple departments provides an opportunity to maximise the overall contribution that each investment can make across all of the well-being themes.

23. Future Wales – our National Development Framework – already goes a considerable way to integrating the Welsh Policy landscape and articulating how it can be realised in a place based way. The delivery chapter of this Strategy sets out how, in developing infrastructure proposals for inclusion within the delivery plans that will underpin the WIIS, project sponsors will need to demonstrate alignment with the place based “Future Wales” framework.

24. The Welsh Government’s Office for Project Delivery (OPD) can assist project sponsors with a range of services to ensure infrastructure propositions are developed and delivered in accordance with best practice. These services include provision of a wide-range of training offers covering, for example, Project and Programme Management (PPM) and Better Business Cases (BBC). The OPD also has a range of assurance products, helping to ensure that independent assurance is brought to bear on projects and programmes promoted by the Welsh public sector.

25. A joined-up approach will not only leverage the largest impact in terms of the primary benefits of investment but also presents opportunities for delivery of an enhanced level of secondary benefits from the investment. A collective endeavour amongst public organisations is also required for this approach to infrastructure to succeed.

26. All investment proposals must demonstrate the coordinated and integrated approach that has been taken in their planning, design and development, and such an approach must be the default position in the development of all infrastructure programmes.

27. As well as joining up the development of infrastructure proposals themselves, joining up of the delivery of services that infrastructure enables is an equally important role that investment decisions can promote. The Welsh Government’s “Town Centre First” principle means that we will look to ensure that buildings and services are located in town centres wherever possible.

28. This also provides an opportunity to join up and deepen the integration of services through co-location or shared facilities. This applies equally to joining up of Welsh Government public services, as it does to developing links between central and local government services, as well as those provided by local health boards.

29. To further improve and enhance access to public service such as health, social care and other community-led services, infrastructure developments must consider the benefits that co-location around a single physical location can bring, both in terms of efficiency and accessibility. Similarly, a place-based approach is required to address the challenge of waste, facilitating the appropriate re-use of materials and recycling of waste in our local communities.

30. Infrastructure investment programmes must fully embrace the opportunities for co-location of key services to maximise the delivery of outcomes.

Investment in new infrastructure vs maintenance of existing infrastructure

31. In developing infrastructure proposals, a key and immediate consideration needs to be whether delivering new infrastructure is necessary, or if maintaining and improving existing infrastructure is a more effective and efficient use of resources, noting in particular the level of emissions associated with construction.

32. Work undertaken by the Scottish Government⁶ indicates that capital maintenance has the potential to support the same strategic outcomes that new infrastructure can deliver. In addition, failure to maintain existing infrastructure can impose short-term costs on users, whilst increasing the long-term cost of repairing or rebuilding.

33. Whilst it will not be applicable in all infrastructure sectors, it is important to consider that Welsh Government land and property assets have the potential to contribute to public value outcomes. The Corporate Asset Management Strategy⁷ sets out how to manage these assets sustainably, and makes clear the ambition to provide the right property, fit for purpose, in the right place, and to contribute to public value particularly through decarbonisation and enhancing biodiversity.

34. Consideration must be given as to whether new or existing assets offer the most efficient approach in developing infrastructure-based solutions.

Resilience to future trends

35. We need to think about how we future proof infrastructure, not just in their physical condition from environmental changes such as floods and high temperature, but in their use. This recognises that the use of infrastructure may change over time as global and local drivers and trends change what we need infrastructure to do. Developing a better understanding of the risks and opportunities of these drivers and trends in developing infrastructure investment proposals will be key.

36. In developing infrastructure investment proposals, spending departments must consider the long-term nature of the development, undertake an assessment of their sustainability in light of future trends and, when considering the appropriateness of development, they must recognise the implications of climate change including flooding risk.

⁶ A National Mission With Local Impact: Draft Infrastructure Investment Plan for Scotland 2021/22 to 2025/26 www.gov.scot page 45

⁷ To be published after recess

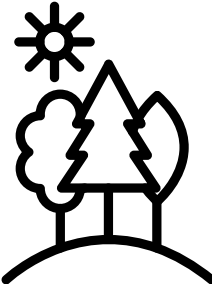
Procurement

37. Public procurement can play a central role in the delivery of progressive policy priorities ranging from decarbonisation, to social value and community benefits, the circular economy and the foundational economy. These policies help to combat climate change, support jobs and training while helping the most vulnerable.

38. The Wales Procurement Policy Statement (WPPS)⁸ sets the strategic vision for public sector procurement in Wales. It will help to define our progress against the well-being goals we are pursuing for future generations, putting the Well-being of Future Generations (Wales) Act 2015 at the heart of all procurement decisions. It details 10 principles for the Welsh Public Sector to follow in the procurement of projects and programmes. **In the development – as well as the delivery – of infrastructure investment proposals, public sector sponsors must adopt the principles of responsible and sustainable procurement defined by the Wales Procurement Policy Statement in order to maximise our approach to tackling the climate and nature emergency.**

39. We published an action plan in November 2021 which underpins delivery against the WPPS principles. We are encouraging buying organisations, either individually or as part of a collaboration, to develop and publish their own action plans detailing how they will support the delivery of priorities at a local, regional and national level.

40. In addition, the introduction of the Social Partnership and Public Procurement (Wales) Bill will place public sector procurers under a duty to deliver socially-responsible outcomes through procurement. This places fair work and social value at the centre rather than procurements being solely focussed on achieving financial savings.



Chapter 4

Environmental Well-Being

Overview

- 1.** This Strategy is built around the core objective of ensuring our infrastructure investments serve a zero carbon economy. The infrastructure that we invest in now will, in many cases, be with us for generations. To address the climate and nature emergency, it is imperative that consideration of the environmental impact of the strategic capital investment decisions we take today is at the heart of investment priorities.
- 2.** In doing so, the investment priorities will reflect the long-term consequences of those investment choices, and explicitly recognise the role that infrastructure investments play in delivering environmental well-being.
- 3.** We have a statutory – and a moral – obligation to support a nation which maintains and enhances a biodiverse natural environment with healthy functioning ecosystems that support social, economic and ecological resilience and the capacity to adapt to change. Climate change and nature are inextricably linked and co-dependent.

- 4.** Whilst this Strategy recognises the four well-being themes as separate pillars, there are inseparable linkages between the themes. Sectoral investment will likely have a clear primary purpose whilst at the same time delivering other valuable benefits across the well-being themes.
- 5.** This is particularly relevant in terms of environmental well-being. Whilst some infrastructure will clearly deliver direct environmental benefits more strongly than others, it is essential that all our investment decisions are viewed through a green and equal economy lens. To ensure that a positive and decisive response to climate change is embedded in everything we do, we must set a framework that ensures that infrastructure investment maximises the environmental benefits, balancing these with the economic or social outcomes that they are primarily designed to deliver.
- 6.** Nowhere is this more clearly illustrated than in our Economic Resilience and Reconstruction Mission⁹. The Mission demands high levels of circularity – with resources kept in use and waste avoided – and driving investment in low-carbon and climate resilient infrastructure, nature-based solutions and renewable energy projects. This is the “Green Recovery” in action – a symbiotic relationship between economic growth and environmental well-being.

9 Our Economic Resilience & Reconstruction Mission
gov.wales/sites/default/files/publications/2021-02/economic-resilience-reconstruction-mission_0.pdf

7. It is important to recognise that “green” investment is not one homogenous theme and that, in many cases, investment that is beneficial in one aspect can have negative impacts on others. For example, the planting of large mono-cultural forests is likely to be beneficial in terms of carbon sequestration but, if replacing a previously natural environment, could be damaging to biodiversity. Therefore, investment decisions need to be considered in light of the trade-offs that may be required between the different outcomes under the environmental well-being theme.

Decarbonisation and greenhouse gas reduction

8. Earlier this year, the Welsh Government built on the ground-breaking 2019 climate emergency declaration (a move subsequently endorsed by the Senedd) by unanimously making a legal commitment to achieve net zero emissions by 2050.

9. While setting ambitious new targets to make a net zero Wales was essential, the new emissions reductions plan makes clear these will be challenging to deliver. Net Zero Wales makes clear that setting ambitious new targets to make a net zero Wales is an essential, but difficult thing to do. This Strategy for infrastructure investment, which aligns with the approach under the Well-Being of Future Generations (Wales) Act, matches that ambition to build a healthier, cleaner and greener Wales for our future generations.

10. Reducing carbon emissions will require transformational changes right across the economy and broader civic society, and the infrastructure that we build and maintain will play a crucial role in whether we can meet this ambition. Successive budgets have increasingly focused on the role that publicly funded capital investments can play in reducing carbon emissions to support the development of a zero-carbon economy, and this Strategy will embed that consideration in future funding decisions.

11. In some cases, this means building infrastructure in a better way – using more efficient processes and recycled materials in construction, or investing in capital programmes that will reduce whole-life emissions. In other cases, it means building better infrastructure – for example, investing in infrastructure that will increase the proportion of energy produced from locally-generated renewable sources, or provide the enablers to change in our patterns of transport use.

12. We know that homes in Wales are responsible for 27% of all energy consumed in Wales and 15% of all our demand-side Green House Gas (GHG) emissions¹⁰. The Decarbonisation Action Group Report places a target for all new homes in Wales to be constructed and operated as low carbon, and be both energy and water efficient no later than 2025¹¹. Welsh Government’s investment in social housing plays a crucial part in this ambition, utilising modern methods of construction (MMC) contributing to reducing material waste in the construction process. Welsh Government’s investment in new social housing embeds circular economy principles by choosing construction materials that can be recycled and contribute to carbon reduction targets. **Our investments in new publicly funded social housing stock must deliver against the targets set out in Net Zero Wales.**

¹⁰ gov.wales/sites/default/files/publications/2019-07/independent-review-on-decarbonising-welsh-homes-report.pdf

¹¹ Independent review on decarbonising Welsh homes: report

13. Whilst we can ensure that publicly funded construction of new housing stock in Wales is energy efficient, there are 1.4m existing homes in Wales, which are some of the oldest and least thermally efficient housing stock in the UK and Europe, with 32% of the Welsh housing stock built before 1919¹². Whilst it is recognised that the decarbonisation of existing housing stock in Wales will need to be a shared endeavour¹³, there is a clear need for Welsh Government investment to support this transition, with nearly 300,000 social and fuel poor homes potentially requiring retrofit measures over the next 10 years¹⁴. **Our infrastructure investments must support the decarbonisation of existing homes, particularly in the social sector, and must ensure that homes are decarbonised well**, in a way that does not increase fuel bills for Welsh householders already struggling with fuel poverty.

14. Whilst our interventions in the private rented sector in Wales increase the supply of properties available for use by local authorities to discharge their homelessness duties, they also provide opportunities to encourage owners to improve the standards of their properties by setting mandatory standards for participation in schemes. **Our capital investment in supporting the private rented sector in Wales will be designed to incentivise improvements in the energy performance of properties.**

15. Still, demand for electricity is expected to double in Wales (as well as the rest of the UK) by 2050¹⁵. The fundamental and accelerated transition to a zero carbon economy to which we have committed legally will need to be underpinned by a zero carbon energy system. It is unlikely that this will be delivered at the scale and pace demanded by the climate emergency, and also in ways acceptable to the people of Wales, if left to the market. Whilst only some aspects of energy policy

are devolved to Wales, **we will support innovation in new renewable energy technology, and continue to develop community and publicly owned energy generation capacity in Wales, building on published policy to increase the amount of locally owned energy generation in Wales**¹⁶.

16. Welsh Government has a key role to play in ensuring that businesses have the tools that they need to overcome future challenges, including the need to reduce carbon emissions from industry. We know that levers other than capital investment will be crucial in delivering this ambition, but making our capital investment in businesses conditional on their contribution to the challenge plays both a practical and a signposting role. **We will ensure that our capital support for businesses in Wales is prioritised to allow them to transition faster and more effectively to a zero carbon economy.**

17. Marine and terrestrial ecosystems are currently the sole sinks for carbon emissions generated from human activity, with a gross sequestration of 5.6 gigatons of carbon per year (the equivalent of some 60% of global anthropogenic emissions¹⁷). In Wales, peatlands represent the largest terrestrial store of carbon by unit area, with an estimated 7Mt of carbon stored within deep peat across the Natural Resources Wales/Welsh Government estate, and the potential to unlock nearly 10 times this yield across the whole Welsh peatland resource. However, peat can only lock down carbon when it is actively growing, and that growth can only take place in healthy habitats – whilst damaged peatlands will release carbon dioxide back into the atmosphere, meaning it is all the more important that they are properly managed. **We will invest in our natural environmental capital, in recognition of the role it plays in carbon sequestration and storage.**

12 Independent review on decarbonising Welsh homes: report gov.wales/sites/default/files/publications/2019-07/independent-review-on-decarbonising-welsh-homes-report.pdf – Page 10

13 www.neweconomics.org/uploads/files/Financing-Wales-Housing-Decarbonisation.pdf (neweconomics.org)

14 Written Statement: The Optimised Retrofit Programme 2020-21 (6 November 2020) gov.wales/written-statement-optimised-retrofit-programme-2020-21

15 www.theccc.org.uk/wp-content/uploads/2020/12/Advice-Report-The-path-to-a-Net-Zero-Wales.pdf – Page 18

16 gov.wales/sites/default/files/publications/2020-02/policy-statement-local-ownership-of-energy-generation-in-wales.pdf

17 www.ipbes.net/sites/default/files/inline/files/ipbes_global_assessment_report_summary_for_policymakers.pdf – page 10

18. Whilst our overall portfolio of infrastructure investments must be planned to support a zero carbon economy, where particular infrastructure programme investments unavoidably result in increased carbon, mitigation of those emissions is also an important tool in managing our overall pathway. For example, additional investment in the commercial property market could have a negative climate change impact, if by encouraging greater economic activity overall, it leads to increased emissions through additional business activity and travel. However, we can mitigate against these impacts through sustainable design and requiring increased energy efficiency of new buildings relative to the existing stock, and relative to equivalent stock that may have come forward without Welsh Government intervention. Equally, applying the principles within Future Wales, new commercial premises should be located within sites that are accessible by public or sustainable transport. **In investing in infrastructure, including commercial buildings we will not only minimise potential associated carbon emissions, but also demonstrate broader leadership in building efficiency.**

19. In 2018 transport was responsible for 17% of Welsh greenhouse gas emissions – 62% from private car use, 19% from Light Goods Vehicles and 16% from bus and Heavy Goods Vehicles¹⁸. Llwybr Newydd – the Wales Transport Strategy, published earlier this year set a target of 45% (currently 32%) of journeys to be made by public transport, walking and cycling by 2040 to achieve the carbon reduction pathway. The Roads Review panel announced earlier this year to set tests for when new roads are the right solutions for transport challenges, is a clear demonstration of our commitment to that target. Evaluation of UK programmes has shown that investment in safe and convenient active travel infrastructure leads to increased rates of walking and cycling, and Llwybr Newydd gives priority to developing interventions that support active travel, public transport and ultra-low emissions vehicles over other private motor vehicles. **In making strategic infrastructure investment decisions,**

we will reflect this hierarchy across the differing transport portfolios, recognising the role that modal shift can play in decarbonisation.

20. Whilst it is crucial that our infrastructure investments are prioritised to play a key role in reducing carbon emissions, the decarbonisation of our economy is about not only capital investment, or even Welsh Government investment. The transport sector above is a key example of this – even with infrastructure investment enabling this level of modal shift, the UKCCC recognises that the main drivers to achieve a low carbon economy will be an effective system of carbon pricing and complementary regulatory change – for example the restriction on the sale of fossil fuel road vehicles. Some elements are within the competence of the UK Government and not devolved to Wales. As is set out in the delivery chapter of this Strategy **we will continue to press the UK Government to take into account Wales’ unique needs and specific context when setting policy which applies across the whole of UK, and work with us to develop analysis on the impact of UK government decarbonisation policy on Wales.**

Investment in Biodiversity and Natural Capital

21. The Environment (Wales) Act 2016 requires Welsh Ministers to seek to enhance biodiversity and promote the resilience of ecosystems within Wales. Biodiversity and well-functioning ecosystems provide natural solutions that build resilience, which in turn help society create jobs, support livelihoods and human well-being, adapt to the adverse impacts of climate change and contribute to sustainable development.

22. This Strategy considers infrastructure in its broadest term and beyond the traditional built environment, including capital investment in our natural assets and ecosystems. In a similar vein to climate change investments, improvements in natural capital can be driven both by investing in better infrastructure, but by also investing in infrastructure better.

23. Whilst infrastructure investment enables behaviour that can improve and enhance biodiversity, it is as always only part of the solution. Our infrastructure investments in this space must align with our broader policies on agricultural support, land use and planning, as well as our management and use of our natural resources.

24. Investment in the protected site network in Wales is critical if we are to successfully tackle the nature and climate emergencies and reverse the decline in biodiversity. The ecosystem approach – which is incorporated into Welsh law¹⁹ – recognises that biodiversity underpins human well-being as well as being valuable in its own right. Alongside direct investment in habitats themselves, we must also consider how to preserve, enhance and improve our scientific understanding of species and habitats which are declining or under threat. **We will invest in resilient ecological networks, recognising the adoption and importance of the ecosystem approach.**

25. Investment in our woodlands can enhance biodiversity, through generating open space, and increasing structural, species and genetic biodiversity. For example, fencing to control levels of deer can support natural regeneration and enhance the shrub layer of woodlands, and the restoration of plantations on ancient woodland sites can enhance the restoration of ecological features, even as the planation

reaches maturity. The Royal Forestry Society estimates that up to 40% of woodland in Wales that is currently unmanaged (some 53,000 hectares) could be feasible to bring back into sustainable management²⁰. Bringing unmanaged woodlands back into management provides an opportunity to deliver some rapid outcomes relative to woodland creation, which could otherwise take decades to deliver benefits. The Woodlands for Wales's strategy²¹ establishes that woodland, particularly ancient woodland, supports more threatened and vulnerable species than any other habitat. Trees and woodland are also of particular significance to pollinators, being a widespread source of pollen and nectar. **We will invest in Wales' woodlands – creating more mixed woodlands, enhancing existing woodlands, and bringing them into active management.**

26. We know that an initial capital investment in restoration work in Wales' peatlands would bring them to a recovering condition²², with ongoing recovery then supported by comparatively low input sustainable management regimes. The National Peatland Action Programme²³ articulates the importance of deep peat for biodiversity in Wales, reflected in the 169 Sites of Special Scientific Interest notified for one or more peatland biological interest features. This includes the provision of a diverse habitat resource for a wide range of specialised and declining or threatened invertebrate species. **Therefore, we will ensure that our natural capital investment in peatlands recognises the broad benefits to biodiversity, as well as the carbon sequestration benefits.**

¹⁹ Environment (Wales) Act 2016.

²⁰ Written Statement: The Optimised Retrofit Programme 2020-21 (6 November 2020) gov.wales/written-statement-optimised-retrofit-programme-2020-21

²¹ gov.wales/sites/default/files/publications/2018-06/woodlands-for-wales-strategy_0.pdf

²² Natural Resources Wales / Anglesey and Llŷn Fens LIFE Project

www.naturalresources.wales/about-us/our-projects/nature-projects/anglesey-and-llyn-fens-life-project/?lang=en

²³ www.cdn.cyfoethnaturiol.cymru/media/692545/national-peatlands-action-programme.pdf

27. Participation in outdoor recreation is very high in Wales, with 81% of adults taking part in one or more activity at least once in each year²⁴. Public rights of way, open access land and designated landscapes all contribute hugely to this utilisation, and investment in infrastructure is crucial to allow people to access and enjoy our natural environment and designated landscapes in Wales. **We will invest in the enabling infrastructure, including our designated landscapes, to allow access to our green and blue spaces, and maximise the usage of our environmental assets.**

28. However, these areas of direct infrastructure investment in improving biodiversity are likely to be a comparatively small part of our overall investment. Significant investment infrastructure programmes will have primary outcomes delivering against other well-being themes, and it is crucial that secondary benefits in the biodiversity space are built into those programmes.

29. For example, our Strategic Road Network “soft estate” (the green spaces and land associated with a road) is a significant natural resource of approximately 3000 hectares. Given that they are relatively undisturbed, such sites generally have high biodiversity value²⁵, and through demonstration best practice on our trunk roads, we can deliver measures that improve the connectivity and diversity of our ecosystems. For example, since 2018, over 60,000 native trees and shrubs and over 50,000 native bulbs and young plants have been planted across the existing soft estate, alongside 100 individual road verge improvement projects to benefit wildflowers and pollinators. **In line with the commitment in Llwybr Newydd²⁶, we will maintain biodiversity and increase ecosystem resilience through our infrastructure investments in the road network.**

30. It is vital that our strategic infrastructure investments play a key part in delivering a green transformation for Wales, starting in our local communities. The public increasingly wants our towns be greener and more pleasant places to be. Green infrastructure is a fundamental part of our Transforming Towns agenda, and our support for green infrastructure, has seen the delivery of the greening of existing public infrastructure to enhance beauty and biodiversity. For example, a regeneration project in Caerphilly adapting the former Police Station and Magistrate Courts included the provision of a green roof, biodiverse landscaping and outdoor space for leisure and recreation.

31. We will also continue to invest in nature in the everyday places as well as our protected sites and woodlands. We want to ensure communities engage with restoring and enhancing nature using capital investment to make a difference locally. For example to create community food growing spaces, planting local orchards and trees, or creating wildflower meadows, and creating local green spaces ‘on your doorstep’. Furthermore, our published Building Better Places document focuses on key areas of Planning Policy Wales, including the importance of green spaces, encouraging the creation of new spaces, and improving people’s access to green space. **We will invest in expanding Wales’ green spaces, including through our transforming towns agenda, reflecting the ever-increasing importance that the public place on the natural environment²⁷.**

32. There will be instances where trade-offs are needed between infrastructure investment priorities. For example, whilst investment in our physical flood defence networks can protect natural habitats from the devastating impact of flooding, in other cases, defences around our coastline in combination

24 National Survey for Wales 2016-17 Key Facts for Policy & Practice- Outdoor Recreation (naturalresources.wales)

www.naturalresources.wales/media/684900/national-survey-for-wales-2016-17-key-facts-for-policy-and-practice-outdoor-recreation.pdf

25 Managing road verges for wildlife | The Wildlife Trusts www.wildlifetrusts.org/wildlife/managing-land-wildlife/managing-road-verges-wildlife

26 gov.wales/sites/default/files/publications/2021-03/llwybr-newydd-wales-transport-strategy-2021-full-strategy_0.pdf – page 29

27 www.centrefortowns.org/reports/public-opinion-on-the-environment/viewdocument/24 – page 3

with sea level rise can result in loss of intertidal habitat²⁸. We are required, by law, to compensate for these losses, and provide any necessary habitat compensation. **Where our critical infrastructure investments have an unavoidable impact on biodiversity and our natural environment, we will invest in offsetting measures to minimise and mitigate those impacts.**

Improvements in air and water quality

33. Our programmes of action to tackle water and air quality issues have clear links with outcomes underpinning our social well-being themes, given the health issues associated with poor air quality in particular. However, there are clear benefits to the broader environment from action to improve natural resource quality across Wales, and the role that infrastructure investments can play in delivering those improvements are considered in this section.

34. In Wales, the estimated burden of poor air quality on early deaths is in an equivalent range of between 1,000 and 1,400 deaths per annum²⁹. Pollutants can settle out of the air onto land and water bodies, which can be taken up by plants and animals or cause changes to both land and water-based habitats.

35. Similarly, our water quality interventions are crucial for nature, people and business, and the outcomes that investment enables cuts right across these themes. There is a statutory duty on Welsh Ministers to prevent deterioration and improve all water bodies to “good” status by 2027, and Natural Resources Wales (NRW) reported in 2018 that only 37% of the 942 water bodies in Wales meet that standard.

36. Once again, we must recognise that whilst investment in (and divestment from) infrastructure has a key role to play in the improvement of air and water quality, it is the collective impact with the wider legislative and regulatory environment, including environmental permitting, that will ultimately be the driver for these environmental improvements.

37. There is also a clear distinction between investments that are designed to remediate existing quality issues, and infrastructure investment in other sectors designed to reduce the pollution levels in the first instance.

38. We know that woodlands are particularly efficient at improving air quality by removing particulate matter from the air. Trees are roughly five times as efficient at removing fine particulate matter (PM2.5) than other vegetation types such as crops, heathland or grassland³⁰. Whilst this applies to both rural and urban areas, it is particularly effective where woodland is adjacent to agricultural or industrial buildings, and appropriately designed in urban or transport corridors³¹. **In investing in woodland as green infrastructure, we will ensure that the air quality benefits are considered in conjunction with the benefits to decarbonisation.**

39. Wales is on course to become a zero waste nation by 2050³². In the first instance, investment in infrastructure to support and deliver a circular economy will enable the more efficient use of resources, and therefore reduce air pollution as a side effect of inefficient production processes. Additional improvements to air quality will be driven by reducing the amount of biodegradable waste which we send to landfill, and by transitioning the public sector transport fleet (including Local Authority refuse fleets) to ultra-low emission vehicles. **We will invest in infrastructure to support the transition to a circular economy maximising the benefits to air quality as well as decarbonisation.**

28 gov.wales/sites/default/files/publications/2021-03/the-national-strategy-for-flood-and-coastal-erosion-risk-management-in-wales.pdf – Page 29

29 gov.wales/sites/default/files/publications/2020-08/clean-air-plan-for-wales-healthy-air-healthy-wales.pdf – page 23

30 National Forest Evidence Pack www.erammp.wales/sites/default/files/ERAMMP%20Rpt-32%20National%20Forest%20Evidence%20Review%20v1.0_en.pdf – page 25

31 gov.wales/sites/default/files/publications/2020-08/clean-air-plan-for-wales-healthy-air-healthy-wales.pdf – page 46

32 gov.wales/sites/default/files/publications/2021-03/beyond-recycling-strategy-document.pdf – Page 11

40. Within the transport sector more broadly, we know that road transport, rail, aviation and domestic shipping are responsible for 50% of nitrogen oxides and 16% of fine particulate emissions in the UK, and in particular, road transport is responsible for approximately 80% of NOx concentrations at roadside³³. Llwybr Newydd establishes an infrastructure investment hierarchy, designed to encourage modal shift from private car use, to more sustainable modes of travel. However, changes between modes of travel is only one aspect of change, and the UK Government's announcement that the sale of new petrol and diesel cars will be banned from 2030 brings into focus the importance of investment in enabling infrastructure to support the uptake of electric vehicles privately. **We will prioritise our infrastructure investments in the transport portfolio in line with the established hierarchy to both support modal shift and the transition to electric vehicles.**

41. Natural Resources Wales undertake a programme of direct capital works in order to increase the number of watercourses that meet good quality status. Action has been targeted at five key factors that have been identified as preventing these water bodies from reaching good status – physical modifications, diffuse pollution from rural areas, urban pollution, sewage and wastewater, and abandoned metal mines. **We will invest in infrastructure remediation programmes where they assist in meeting Welsh Minister's statutory targets.**

42. Investment in our flood infrastructure is not only associated with defences. Our risk management approach also considers how to manage water and catchments to reduce risk through Natural Flood Management (NFM), adapting places to better cope with repeated and increasing flood risk. This type of intervention comes with additional benefits, including improvements in water quality³⁴. **In line with the principles set out in the National Strategy for Flood and Coastal Erosion Risk Management in Wales, we will invest in infrastructure that supports the NFM approach.**



**Walking and
Cycling**



**Public
Transport**



**Ultra Low
Emissions
Vehicles**



**Other Private
Motor Vehicles**

33 gov.wales/sites/default/files/publications/2020-08/clean-air-plan-for-wales-healthy-air-healthy-wales.pdf – page 59

34 gov.wales/sites/default/files/publications/2021-03/the-national-strategy-for-flood-and-coastal-erosion-risk-management-in-wales.pdf – Page 29

Reduction in unsustainable consumption of natural resources

43. The national recycling rate in Wales has now reached over 65%, exceeding our latest target and cementing our place as one of the highest recycling nations in the world. Our “beyond recycling” strategy³⁵ sets an ambitious target for 2050, as a country which instinctively thinks and plans to use as few resources as possible, keeps those resources in use for as long as possible and then finds new uses for these resources at the end of their first useful life.

44. The objectives of our circular economy infrastructure investments are cross-cutting, and the economic and broader environmental benefits have already been considered. However, investment in infrastructure will build upon the billion-pound investment we have already made in our household recycling across the country, and allow us to support the increase in lending, hiring, leasing, re-use, repair, re-engineering and remanufacturing.

45. In line with the Welsh Government’s “Transforming Towns” agenda, we are putting town centres at the heart of our approach. During the pandemic, many citizens have reconnected with their local communities and are considering more closely the resources that we use. We know that an estimated 40% of all items at Household Waste Recycling Centres are suitable for re-use³⁶. As set out in chapter 4, a key overarching principle of infrastructure investment is to ensure that where appropriate, opportunities to co-locate services are maximised. The development of repair and re-use hubs provide a chance to link up with other investments, including our broader transforming town’s agenda, and community schools. **There are clear opportunities to support repair and re-use activities through town centre hubs, and we will invest in infrastructure to promote the development of the circular economy in those spaces.**

46. A transition to a more resource-efficient economy will require concerted action right across all sectors of society, but there is a key role for the public sector to play in this space. This may take the form of a demonstration of leadership, but also as a way of harnessing the huge range of activity that the public sector in Wales delivers. **We will continue to support publicly funded bodies to invest in infrastructure to achieve a zero-waste economy**, building on the significant range of investments already supported, from community improvements in recycling to cutting edge innovation in our Universities.

47. Whilst the transition of the public sector to a zero-waste economy is crucial, we must also ensure that private businesses have the support that they need in order to deliver on our 2050 ambition. Some of this support will take the form of advice and guidance, together with supporting the delivery of private infrastructure and encouraging shorter supply chains and a more local focus on sourcing materials. **We will ensure that our capital investment in economic development enables businesses to unlock the benefits that a transition to a circular economy can deliver.**

48. There are also ways in which the infrastructure that we already invest in can be done in a more resource effective way. For example, utilising factory built homes using Modern Methods of Construction (MMC) contributes to reducing material waste in the construction process when compared to traditional construction. Our new Welsh Development Quality Requirements 2021 (DQR 21) which sets the standard for social housing we fund, encourages the use of circular economy principles by choosing construction materials that can be recycled and contribute to carbon reduction targets. **We will continue to explore and utilise new low carbon construction technologies, including MMC in our social housing infrastructure investments.**

35 gov.wales/sites/default/files/publications/2021-03/beyond-recycling-strategy-document.pdf

36 gov.wales/sites/default/files/publications/2020-11/green-recovery-circular-economy-fund-2020-to-2021-application-form.odt



Chapter 5

Social Well-Being

Overview

- 1.** Our vision is of an equal Wales that prioritises the health and well-being of its citizens, and our collective strategic investments in infrastructure have a key role to play. In determining what investment programmes must be funded to deliver this vision, we will ensure that the distinctively Welsh values of community, equality and social justice are clearly embedded, with placemaking principles at the heart of everything we do.
- 2.** We will ensure that people have access to high quality and sustainable healthcare – building on the incredible resilience that has been demonstrated throughout the coronavirus pandemic, whilst recognising the substantial pressures it has created. We also want our investments to make our cities, towns and villages even more rewarding and vibrant places to live and work in and to ensure that, as we protect and re-build our public services, those services move to eliminate inequality in all its forms.
- 3.** A wide view of the types of infrastructure that deliver social well-being is taken in this section. Whilst it is comparatively self-evident that traditional forms of social infrastructure – hospitals, schools etc. – can deliver social well-being outcomes, some of the benefits driven by what would broadly be considered economic infrastructure are firmly within the social sphere. In addition, investment in housing is fundamental to the well-being of people in Wales.

4. Equally, all capital investments that the Welsh Government makes are considered as infrastructure investments here, even if there is no resulting Welsh Government “infrastructure” asset. For example, capital grants and support to private businesses drive investment in infrastructure in Wales, and loan financing results in a financial asset. It is crucial that these investments work to deliver the same strategic outcomes right across Wales as governmental spending on “traditional” infrastructure.

5. As is the case in the delivery of other well-being themes, infrastructure investment plays a crucial role in delivering the strategic outcomes – but it is only one role in a much wider production. Service provision, regulation and communication must work together to deliver social well-being across Wales. This chapter focuses on the infrastructure investments described above and does not consider the funding committed to wider delivery levers.

Improving and protecting the physical health, safety and well-being of the people of Wales

6. The primary role of government is to ensure the health and safety of its citizens. A healthy population is not just important in order to improve economic development, but is an important ambition in and of itself. Recognising the need to deliver a healthier Wales, our investments must ensure that people are able to live healthy and fulfilled lives.

7. Our investment in our health and social care sector infrastructure is a clear, direct lever in improving the health and well-being of the people of Wales. Investment in technology can accelerate diagnosis and better inform treatment options – this is often through replacement equipment with more modern, faster and efficient technology. For example, replacement MRI machines have shorter scan times which mean that more patients can be seen, helping to address waiting times.

8. Similarly, provision of clinically appropriate accommodation is a key part of the NHS Capital Programme, which directly leads to improved clinical outcomes. Investment in areas such as hybrid theatres that reduce opportunities for infection is just one example. With such a vast amount of NHS Estate across Wales, on-going upkeep and investment to ensure services are provided in a safe environment is a key part of the NHS capital programme.

9. Healthier Wales³⁷ also sets the vision of a system of prudent healthcare, based strongly on the preventative principle that focusses on providing the necessary levers for people to manage their own health and wellbeing. This system will require delivery of integrated health and social care services, underpinned by modern and appropriate infrastructure.

10. Increased demand for treatment and the impact of COVID-19 on activity will be a major factor in future years as the NHS seeks to not only transform, but to also deal effectively with existing and growing demands. We know that integration of services and a focus on prevention will be crucial. **We will invest in infrastructure that enables our NHS and care services to deliver exemplary care, in fit for purpose, safe and integrated environments – which are accessible to all – to promote and improve people’s wellbeing.**

11. The demands on our health and care services continue to grow as the demography of Wales changes. A key part of our well-being and prevention agenda is to ensure the homes of people who face the greatest challenges support them to live independently for longer. This improves well-being and reduces demand on acute health services and residential care. In order to support children and families with higher needs, people with physical and learning disabilities and older people, including people with dementia, **we will invest in innovative housing and accommodation to meet care needs.**

12. The primary aim of Welsh Government investment in our flood and coastal risk management infrastructure is to reduce the risk to people and communities from flooding and coastal erosion³⁸. We know that flood and coastal risk are one of the key results of a changing climate – increases in storm events, flash flooding and sea level rises are likely to become more prevalent. To this end, our investments are largely preventative and designed to avoid the damage caused by flooding. Across Wales, some 245,000 properties are at risk of flooding from rivers³⁹, the sea and surface water with almost 400 properties at risk from coastal erosion⁴⁰. **Our investments in flood defence infrastructure will be designed to prioritise protection to those communities most at risk, whilst also ensuring that we prevent more people becoming exposed to risk.**

37 A Healthier Wales gov.wales/sites/default/files/publications/2019-10/a-healthier-wales-action-plan.pdf

38 gov.wales/sites/default/files/publications/2021-03/the-national-strategy-for-flood-and-coastal-erosion-risk-management-in-wales.pdf – page 11

39 Flood Risk Assessment Wales, NRW (2019)

40 National Coastal Erosion Risk Map (2012); most likely scenario under SMP policies over next 100 years

Reduce the risk to people and communities from flooding and coastal erosion

- A  Improving our understanding and communication of risk
- B  Preparedness and building resilience
- C  Prioritising investment to the most at risk communities
- D  Preventing more people becoming exposed to risk
- E  Providing an effective and sustained response to events

13. The Grenfell Tower tragedy exposed a number of issues in relation to cladding and compartmentation in high-rise residential building, putting the safety of residents in danger. We know that these issues are not limited to London, and that there are properties in Wales with similar issues that must be addressed. Although under existing leasehold contracts it is often the case that the leaseholder is legally obliged to fund remediation, we have been consistent in our stance that building owners and developers should face up to their moral responsibility and put right these faults.

14. Alongside the immediate and clear benefit to the safety of Welsh citizens, our infrastructure investment in building safety also has a clear role in improving the mental health of residents who currently live in buildings with fire risk concerns. Not only will such investments deliver peace-of-mind for all residents in multi-occupied buildings, knowing such buildings have stringent fire safety procedures in place should alleviate any concerns in the wider community about the fire risk of such buildings. We remain clearly of the view that there is a moral obligation on developers to remediate these issues **and in our**

ongoing response to these issues, we will consider the role that strategic public infrastructure investment should play in remediating issues created by private businesses and in improving the mental health and well-being of the residents of high-rise buildings.

15. Frontline firefighting resources are a matter for our Fire and Rescue Authorities. However, there are some capabilities, which reflect national-level issues, and risks, which are beyond their means and remit. These include the capability to respond to major disasters like serious flooding, building collapses and terrorist attacks, and the common system for communicating with the police and ambulance service during incidents which require their attendance too. **We will invest in infrastructure that enables our Fire and Rescue Services to continue to protect the lives and safety of people in Wales.**

16. In February 2020, the effects of Storms Ciara and Dennis resulted in the slippage of a coal tip in Tylorstown. Since then, work has been undertaken to understand the risk that these industrial legacies pose to the safety of the people of Wales. More than 2000 disused coal tips have been identified, predominately in the South Wales Valleys, and with a high percentage in private ownership. With partners, we are delivering an inspection and maintenance programme and we will introduce a new statutory management regime for disused coal tips in Wales. Whilst a robust inspection and maintenance regime is essential to ensure that we safeguard our communities, meaning people feel safe and secure, a long-term reclamation programme is needed to address the disproportionate impacts of the legacy of the UK coal industry, the benefits from which being shared across the whole of the UK. As a government, we are working to protect our coalfield communities against the dangerous legacy of the United Kingdom's proud industrial past. **We will seek to deliver a long term coal-tip reclamation programme to protect the people of Wales, but UK Government also has a role to play in supporting a long-term settlement, outside of the Barnett formula, to reflect the disproportionate industrial legacy risks Wales faces.**

17. Two-thirds of attributable deaths in high-income countries are due to unhealthy diet and lack of physical activity, with heart disease and strokes being the leading causes of death for people over 45 years⁴¹. We know that investment in safe and convenient active travel infrastructure leads to increased rates of walking and cycling, and that these increased rates, deliver large health benefits. At a UK level, a study extrapolating how increased active travel as a result of climate change strategies calculated that around 34,000 disability-adjusted life-years would be saved in 2030⁴², with a value of over £2.5bn per year⁴³. Llwybr Newydd puts investment in walking and cycling at the top of the hierarchy for new transport infrastructure⁴⁴ and, **in making our strategic investment decisions, we will prioritise new active travel infrastructure, recognising the significant health benefits which that investment can deliver.**

18. Throughout this Strategy, there is a recognition of the need to prioritise new investment in active, sustainable and public transport over the use of private road vehicles. However, Welsh Ministers remain directly accountable for the Strategic Road Network (SRN – comprising motorways and trunk roads) in Wales, with statutory duties and powers for its safe operation and maintenance as the highway authority.

19. The network carries approximately 65% of all road traffic in Wales, comprising of 11.2bn vehicle kilometres in 2017. The Welsh Government Trunk Road Maintenance Manual⁴⁵ establishes a robust regime for routine maintenance, resilience & contingency planning, as well as managing safety risk. A sustainable funding strategy is required in this £17bn

asset, to address the current maintenance backlog and ensure it supports delivery of the ambitions and priorities in the new Wales Transport Strategy. **We will ensure that our strategic infrastructure investments enable effective maintenance of our SRN, meeting our statutory obligations, and protecting the safety and lives of the people of Wales.**

20. Research undertaken by Sport Wales demonstrates the clear link between participation in sport, and improved physical health and well-being outcomes⁴⁶ – including a reduction in the risk of Coronary Heart Disease and stroke in active men and women by 30%, dementia by 30%, and reduced risk of breast cancer in active women by 20%. In total, the social return on investment as a result of improved health has been calculated as £295.17m. The “vision for Sport Wales”⁴⁷ seeks to unleash the benefits of sport for health issues through the provision of sport and recreation opportunities for all ages, throughout life. **We will invest in sports infrastructure that provides the opportunity for the associated health and well-being benefits to be recognised.**

41 No 178: More evidence as to the importance of co-benefits of climate change mitigation – Travelwest www.travelwest.info/essential-evidence/no-178-more-evidence-as-to-the-importance-of-co-benefits-of-climate-change-mitigation

42 No 178: More evidence as to the importance of co-benefits of climate change mitigation – Travelwest www.travelwest.info/essential-evidence/no-178-more-evidence-as-to-the-importance-of-co-benefits-of-climate-change-mitigation

43 Smith, A.C. et al (2015); Health and environmental co-benefits and conflicts of actions to meet UK carbon targets; in Climate Policy, www.ora.ox.ac.uk/objects/uuid:c83ec664-bc36-4965-b117-37a1a6cb9196 – p.17

44 gov.wales/sites/default/files/publications/2021-03/llwybr-newydd-wales-transport-strategy-2021-full-strategy_0.pdf – page 19

45 gov.wales/sites/default/files/publications/2019-01/181025atn12647doc1.pdf

46 Sport Wales: Social Return on Investment in Sport www.sport.wales/content-vault/social-return-on-investment-in-sport/

47 www.visionforsport.wales/

21. Wales' industrial heritage presents challenging land contamination issues which have a direct impact on health and well-being. Our investments targeted at releasing stalled public land for development de-contaminate public land, removing the risk to public health in the first instance, and ensuring that otherwise polluted land is available to deliver wider public outcomes. These projects include initiatives to acquire and remediate strategic stalled sites in town centre locations, offering the opportunity for high quality housing developments that offer mixed tenure, energy efficient homes built to space standards, green space, active travel routes, access to public transport and town centre services. **Where appropriate, our investments to bring public land back into use will ensure that the public health risks from contamination are mitigated, and opportunities for the creation of sustainable communities in town centre locations are maximised.**

Improving and protecting the mental health and well-being of the people of Wales

22. Just as they facilitate improvements in people's physical health, our key infrastructure investments also play a crucial role in improving the mental health outcomes of the people of Wales, and we will prioritise our investment in this area.

23. Whilst mental health service provision is the primary lever, investment in modern, fit for purpose estate and infrastructure plays an important enabling role. A Healthier Wales sets out the clear vision for a system that provides an equitable level

of treatment, care or support to people throughout their lives and irrespective of whether it is a matter of physical or mental health⁴⁸. **Our investment in infrastructure within the health and social care sector will reflect the holistic approach to physical and mental healthcare.**

24. The COVID-19 pandemic has had a significant impact on the mental health of the people of Wales⁴⁹, and has shown the value that the public place on green spaces and access to nature. Spending time in natural woodlands can be helpful for those with mental health problems, and support people coping with stress and depression⁵⁰. Investing in the health and therapeutic benefits of woodlands and trees is well-recognised by the NHS in practices such as 'green prescribing'. **In investing in our natural assets, we will seek to maximise the wider health benefits that they can provide.**

25. The findings of recent research examining the relationship between culture and wellbeing⁵¹ identified that health and well-being factors were positively impacted depending on individuals' access to arts and culture. Whilst the research caveats make clear that correlation does not necessarily signal causation, the research found that attendance or participation in cultural activities plays a role in predicting if someone will report high well-being. Further research supports this, in finding that participating and attendance in the arts meant that people are more likely to have good health and higher life satisfaction⁵², **and we will ensure that our investment in infrastructure that supports cultural activities reflects the benefits to mental well-being which those activities can deliver.**

26. Our Loneliness and Isolation Strategy⁵³ outlines the importance of community spaces and the positive outcomes that they can have on well-being. Community facilities are

48 A Healthier Wales gov.wales/sites/default/files/publications/2019-04/a-healthier-wales-our-plan-for-health-and-social-care.pdf – page 9

49 gov.wales/sites/default/files/publications/2020-10/review-of-the-together-for-mental-health-delivery-plan-20192022-in-response-to-covid-19_0.pdf – page 1

50 gov.wales/sites/default/files/publications/2018-06/woodlands-for-wales-strategy_0.pdf – page 28

51 Welsh Government: Exploring the Relationship between Culture and Wellbeing gov.wales/exploring-relationship-between-culture-and-wellbeing

52 Lakey, J, Smith, N, Oskala, A, McManus, S. (2017) Culture, sport and well-being: Findings from the Understanding Society adult survey. London: NatCen Social Research

53 gov.wales/sites/default/files/publications/2020-02/connected-communities-strategy-document.pdf

often used to host services for individual community members to learn, socialise, volunteer and work. This local access can also prevent problems such as an increase in loneliness and isolation from occurring or worsening and needing interventions that are more acute. In addition, community ownership of valued and well-used buildings can provide a focus for cohesion and build community resilience. **We will invest in community owned infrastructure to deliver improved mental health and well-being outcomes alongside improvements in community cohesion.**

27. Investment in our core education estate can improve the mental well-being of learners and staff by providing modern, creative, high quality, fit-for-purpose education facilities. Evidence suggests the impact from immersion in creative learning environments on learners' academic achievement leads to increased confidence and resilience; enhanced motivation and engagement; development of social and emotional and thinking skills and improved school attendance⁵⁴. **Our infrastructure investments in our educational estate will be designed to deliver mental health benefits alongside educational attainment.**

28. We recognise the impacts flooding can have on mental health – both during a flooding event itself, and the lasting effects, which can continue long after the event itself. Whether this is from loss associated with the flood event itself, or from being displaced whilst repairs are undertaken, insomnia and depression can also result. A study by Public Health England⁵⁵ recorded a significant association between displacement due to flooding and symptoms of depression, anxiety and post-traumatic stress. **Flood risk management investments can stop or mitigate flooding events, preventing the associated mental health impacts, enabled by our strategic investment in flooding infrastructure.**

Reducing Social inequalities

29. Since 31 March 2021, the Socio-economic Duty has been in force in Wales, putting tackling inequality at the heart of public decision-making. It creates a statutory duty on the Welsh Government to ensure that all our strategic infrastructure investments embody our contribution to social equality and removing the structures of inequality.

30. Amongst other outcomes, this section sets out how strategic infrastructure investment in Wales can provide a framework to eliminate inequality in all of its forms. We will challenge the structures of power and social relations that create fundamental disparities for our protected communities, including addressing the systemic causes of racism, hateful behaviours and other forms of discrimination. In developing and funding proposals to deliver these strategic outcomes, spending departments will need to ensure that their programmes are designed to tackle inequality of outcomes for people who suffer socio-economic disadvantage.

31. This builds on a range of statutory equality duties that already fall on public bodies, including the Public Sector Equality Duty under section 149 of the Equality Act 2010 and Welsh-specific equality duties under the 2011 Regulations.

32. Wales' Estimates of Housing Need⁵⁶ indicates that there is demand for an average of 7,400 additional housing units a year, of which just under half (48%) would need to be affordable housing in the next 5 years. We know that providing a warm, safe home is about far more than simply ensuring that people have a roof over their heads; provision of safe, good quality housing improves health and educational outcomes, as well as improvements in social cohesion⁵⁷. Poor housing

54 www.researchspace.bathspa.ac.uk/1576/1/Impact%20of%20creative%20environment%20on%20learners_Improving%20Schools_21%2011%2012%20revised%2022.1.13.pdf

55 [www.thelancet.com/journals/lancet/article/PIIS2542-5196\(17\)30047-5/fulltext](http://www.thelancet.com/journals/lancet/article/PIIS2542-5196(17)30047-5/fulltext)

56 gov.wales/estimates-housing-need-2019-based

57 gov.wales/sites/default/files/publications/2019-04/independent-review-of-affordable-housing-supply-report_0.pdf – page 9

exacerbates inequalities and disadvantage. Those at greatest risk are older people, children, those with existing health problems and the unemployed⁵⁸. Investment in adaptations, repairs and improvements can transform the lives of disabled people, those with limiting long-term health conditions and people with life-limiting diseases. **We will ensure that our strategic investment in housing, including our adaptation programmes, to ensure that people in Wales have access to good quality, suitable, and affordable homes.**

33. Energy inefficient homes – widespread across Wales – are not just a significant driver of carbon emissions. Poor energy efficiency means higher fuel bills, forcing people into fuel poverty – where a household spends more than 10% of its net income on household fuel to maintain a satisfactory heating regime. Investment in measures to tackle fuel poverty make a real tangible difference – in 2019-20, nearly 6,500 homes had home energy efficiency measures installed in their properties, with an average saving of between £280 and £290 per year⁵⁹, ⁶⁰. However, it is important to be mindful of the current tensions that can exist between these social and environmental outcomes. Switching from low-cost gas to higher cost heat pumps may drive improvements in carbon emissions associated with energy consumption, but impose those costs on households. **We will continue to make strategic capital investments to alleviate fuel poverty, whilst recognising that the costs of decarbonising the housing stock do not fall disproportionately on those households in fuel poverty.**

34. Our Economic Action Plan is built around the key principle of “public investment with a social purpose”⁶¹. The growth of the gig economy means that some people find themselves increasingly trapped in a cycle of low-wage and casual work. The economic contract on which our capital investments in Welsh businesses is based makes clear that those investments

must enable employment that is both high quality and fair, allowing people to access a fair income, without exploitation or poverty. **We will continue to ensure that our strategic capital investments deliver the security, stability and opportunity that decent and fair work can provide.**

35. We know that investment in quality childcare and play facilities can help young children develop into healthy, active adults. It develops their cognitive, social, and emotional wellbeing and mitigates the harmful effects of adverse childhood experiences. Good quality childcare can also support attachment and the development of healthy relationships and reduce poverty for families. Our capital investments includes a grant allocation to local authorities across Wales to help fund childcare providers’ small capital works. The Childcare Offer, Flying Start and Welsh-medium capital grants are delivered collaboratively with our central schools and colleges programme to ensure a joined up approach to the management of our capital programmes. **We will ensure that our infrastructure investments in the Education portfolio provides the support for children and families to provide the best possible start in life.**

36. Investment in our education estate and beyond can also deliver real community cohesion through the provision of community facilities that promote prosperity and reduce inequality. Whether this is provided as part of our infrastructure investments (for example, we know that new and improved school buildings facilitate an increase in community use of the school’s facilities⁶²) or providing capital support to the third sector, these facilities play an important role. In many cases, they will host services often used by the most vulnerable in society, **and we will prioritise our strategic infrastructure investments to ensure that there are appropriate and accessible places for these services to operate from.**

58 www.phw.nhs.wales/files/housing-and-health-reports/a-case-for-investment-report/

59 www.nest.gov.wales/workspace/uploads/files/nest-annual-report-english-5f5b522fc5fc2.pdf

60 www.arbedambyth.wales/eng/annual-report-2019-20.pdf

61 gov.wales/sites/default/files/publications/2019-02/prosperity-for-all-economic-action-plan.pdf – page 8

62 www.files.eric.ed.gov/fulltext/ED502369.pdf – page 19

37. Walking and cycling are the most affordable transport modes, enabling access to employment, training, education and services at no or low cost. However, there are currently marked inequalities in the likelihood of cycling within minority groups, despite a strong desire to start within these groups⁶³. For example, in Cardiff alone, 73% of residents from socioeconomic groups D and E never cycle, but 26% would like to start – equivalent to 19,000 adults⁶⁴. **Our investment in strategic active travel infrastructure will consider the benefits that schemes can deliver in encouraging take up across all social groups.**

Improving Access to key public services

38. Social well-being and cohesive communities are dependent on the members of those communities having access to key public and foundational services. Barriers to those services can be physical, financial or psychological, and the strategic infrastructure investments that we make are crucial to ensuring these barriers are reduced, and that opportunity is enhanced.

39. We know that in 2019-20, some 13% of people in Wales did not have access to a car⁶⁵. However, when it comes to regular users of bus services, that figure increases to 78%, and includes a disproportionately high number of people in lower socio-economic groups. In many cases, these are people working in settings that are less likely to allow working from home and are therefore generally more reliant on public transport. We are committed to the safeguarding of public transport services to ensure accessibility to employment, education and key services, as demonstrated by the taking

into public control of the Wales and Borders Rail Service.

We will invest in infrastructure that enables a stable and coherent network of public transport services, fully integrated with other modes of transport, which are reliable, affordable and adapted to people's needs⁶⁶.

40. The Welsh Government's adoption of the Town Centre First Principle⁶⁷ means that investment in infrastructure – including those that enable the delivery of key public services – should be prioritised in town centres, and made more accessible to those without cars. Whilst delivery of this will be driven by the spatial choices of investment in our transport, housing, health and education sectors, our regeneration investments play a key enabling role by ensuring that town centres become important focal points of communities and are increasingly becoming places to live, and centres of community and cultural activity. **We will ensure that our strategic regeneration investments are targeted at improving the fabric of town centres, creating the environment needed for accessible public services.**

41. Digital connectivity is a key enabler of modern public service delivery, allowing access to services that may otherwise be restricted. The COVID-19 pandemic has accelerated the shift to digital services, requiring rapid connection of hospitals, testing facilities and vaccination centres. However, effective utilisation of those services can only be achieved with connectivity which is reliable and fast. Our investments to date have provided 733,000 premises with access to superfast broadband, representing an increase from around 48% coverage in 2013, to around 95%⁶⁸. **We will continue to invest in digital infrastructure to deliver fast and reliable broadband to areas of Wales not provided by the market.**

63 www.arup.com/perspectives/publications/promotional-materials/section/inclusive-cycling-in-cities-and-towns

64 www.sustrans.org.uk/media/5946/bikelife19_cardiff-v73_eng_web.pdf – page 5

65 National Survey for Wales gov.wales/national-survey-wales-results-viewer

66 gov.wales/sites/default/files/publications/2021-03/llwybr-newydd-wales-transport-strategy-2021-full-strategy_0.pdf – page 55

67 Update to Future Wales – The National Plan 2040 <https://gov.wales/sites/default/files/publications/2021-02/future-wales-the-national-plan-2040.pdf> – page 71

68 www.ofcom.org.uk/___data/assets/pdf_file/0020/186410/connected-nations-2019-wales-report.pdf

42. Similarly, our overarching ambition to increase the use of active travel networks must not come at the cost of restricting access to services. The Active Travel Act requires local authorities to plan and deliver active travel networks across Wales⁶⁹ that create the conditions to allow the majority of shorter everyday journeys to be made on foot or by bike. Our existing statutory guidance makes clear that these networks need to connect where people live with the destinations they travel to; including public transport hubs, and that all schools and key employment sites and other key destinations will be linked through walking and cycling routes. **We will ensure that our strategic investment in active travel infrastructure promotes the accessibility of key public services.**

43. As set out in our “Beyond Recycling” strategy⁷⁰, several Local Authorities have already committed to a one planet or net zero waste future. Delivery of this will be dependent on citizens having easy access to the required services, such as zero waste and zero plastic shops, surplus food redistribution, community fridges and refill points. **We will align our strategic investments to activity that drives the development of community infrastructure which helps citizens to reduce waste.**

44. Alongside new capital investment, it is crucial that we maximise the use of our existing infrastructure in providing public services. Whilst the focus for the use of public land assets often focuses on housing, any development must ensure that the new communities gain improved access to public facilities. Equally, the management and usage of the wider Welsh Government administrative estate provides the opportunity to consider collaborative opportunities for sharing space with other public sector organisations, delivering an inter-connected presence for Welsh Government and the wider public sector, with modern, accessible services for the public served. **We will invest in utilising and adapting our existing network of public infrastructure to enhance and improve access to public services.**

⁶⁹ www.legislation.gov.uk/anaw/2013/7/section/10/enacted

⁷⁰ gov.wales/sites/default/files/publications/2021-03/beyond-recycling-strategy-document.pdf



Chapter 6

Economic Well-Being

Overview

- 1.** Our vision for Wales is one of an innovative, productive and crucially net-zero carbon society, with a skilled and well-educated population. In meeting that ambition, we must look to develop infrastructure for a stronger, greener economy that supports inclusive and sustainable growth.
- 2.** That vision makes clear that economic growth must not come at the expense of environmental protection. Trade-offs between the two are not necessarily inevitable – but where they do occur, our presumption must be in favour of maximising the environmental benefits. Our economic well-being needs to be seen as an intrinsic part of a green, inclusive future, and whilst the focus of this section is clearly on the economic theme, we recognise the strong interlinkages within this Strategy.
- 3.** Equally, we know that the outcomes that improve economic well-being are not mutually exclusive either. For example, there are strong interactions between employment levels and household incomes – and whilst they are considered separately below, our investment in improving one will often have positive impacts on the other.

4. Whilst there have been significant changes in priorities since the WIIP was published in 2012 explicitly as a “plan for jobs and growth”⁷¹, there is still a significant role that sustainable investment in infrastructure plays in improving economic well-being. Through our infrastructure investments, we must also work to reverse the damage that over a decade of austerity, Brexit and the impact of coronavirus have caused to our economy. Investment in infrastructure can provide the springboard for grounded, local businesses in the foundational economy across Wales to grow and to develop indigenous manufacturing capability for on-shoring products which may currently only be available from overseas.

5. However, we must again be mindful that infrastructure investment can only play an enabling role in much of this space. Our interventions and investment in our skills base, and revenue support for our public transport networks for example are also crucial drivers in increasing the economic well-being of the people of Wales.

6. As is the case throughout this strategy, we are taking the broadest possible definition of infrastructure. Alongside our direct investment in traditional infrastructure sectors, our capital support to businesses allows them to invest in land, buildings and machinery, enabling them to grow and drive improvements in economic well-being.

Help to increase employment levels across Wales

7. Infrastructure investment can contribute to creating and sustaining employment over the long run by helping to attract and retain businesses and by improving their viability, for example through reducing transport costs. While the primary reason for investing in infrastructure is the delivery of long run benefits of this kind, public investment also creates demand in the short to medium term, particularly in the construction industry and associated supply chains. The construction sector in Wales contributes approximately £5bn per annum⁷², which is 7% of all industries, as well as employing approximately 65,000 employees⁷³ across 48,000 businesses⁷⁴.

8. Whilst we will remain acutely aware of the stimulus effect that our investment can have in developing specific investment programmes under this Strategy, it is the longer-term economic benefits that investment in our infrastructure can deliver through creating the right environment for business to prosper that are set out in this Strategy.

9. The terms of our business support recognises that there is a clear role for government to play in creating the conditions for prosperity, but that it is for businesses to create that prosperity, and to drive opportunities for employment. In order to be eligible for direct Welsh Government capital support, one of the “calls to action” is that our investment in Welsh businesses delivers high quality employment skills development and fair work. **We will strengthen our strategic capital support for businesses to ensure that jobs and livelihoods are protected and created.**

10. The Development Bank of Wales (DBW) plays a major role in supporting economic recovery and sustainable growth, and never more so than in response to COVID-19. In 2020-21, over £92m of emergency funding was delivered to 1,334 SMEs, safeguarding over 16,000 jobs⁷⁵. The Welsh Government’s ongoing commitment to business support was clearly demonstrated through the significant £270m capitalisation of the Wales Flexible Investment Fund earlier this year. **Through our investments made via DBW, we will ensure that our business support clearly delivers the government’s vision of a green and inclusive economy**⁷⁶.

11. We know that having frequent, reliable public transport services enables people to have confidence in getting to their place of work and so applying for vacancies when they arise if a commute is involved. These services need to be regular, comfortable and have accurate travel information to appeal to more people to travel on them every day. With inward investors looking for sites to develop, 26% of respondents commented that transport infrastructure was one of their criteria for making investment decisions. In addition our investments in rail infrastructure will work alongside those in regeneration to deliver the “Transit Orientated Development” principles, to maximise development opportunities around new station locations, to realise job opportunities in sustainable locations. In light of our new target of 45% of journeys to be made by sustainable modes of travel by 2040, and the importance of investment in the next decade to achieve this, **our strategic investment in public transport infrastructure will improve access to job opportunities, and enable sustainable location of employment.**

72 Gross Value Added in Wales by industry (gov.wales)

www.statswales.gov.wales/Catalogue/Business-Economy-and-Labour-Market/Regional-Accounts/Gross-Value-Added-GDP/gvainwales-by-industry

73 Employee jobs in Wales by industry and year (gov.wales) www.statswales.gov.wales/Catalogue/Business-Economy-and-Labour-Market/People-and-Work/Employment/Jobs/Employees-Only/Business-Register-and-Employment-Survey-SIC2007/employeejobsinwales-by-industry-year

74 Enterprises by industry (SIC2007), size-band and area (gov.wales) www.statswales.gov.wales/Catalogue/Business-Economy-and-Labour-Market/Businesses/Business-Structure/Headline-Data/enterprises-by-industry-sic2007-sizeband-area

75 www.developmentbank.wales/sites/default/files/2021-06/DBW_Annual2021.pdf – page 4

76 www.developmentbank.wales/sites/default/files/2021-06/DBW_Annual2021.pdf – page 5

12. Llwybr Newydd set out an ambition for the SRN in Wales to both sustain and create employment opportunities in Wales⁷⁷. Making travel more efficient and sustainable can widen the labour catchment area for businesses, as well as increasing the attractiveness of an area to new businesses improving employment opportunities^{78, 79}. In the short run, the supply chain associated with the operation, maintenance and improvement of the Strategic Road Network supports between 800 and 1000 employees who are integral to our success in maintaining and improving the network.

Our strategic investment in our SRN will reflect both the investment hierarchy, and the ambition to create employment opportunities, as set out in Llwybr Newydd.

13. Whilst our regeneration investment approach has matured over a number of years to a more holistic approach that values housing, public spaces and community services, economic impact remains a crucial aspiration. The evaluation of our regeneration initiatives shows that the capital investments have exceeded the predicted number of gross jobs created. **We will invest in infrastructure to support our town centres to become more economically agile, allowing businesses to work co-operatively and maximise local supply chains in a way that continues to support job creation.**

14. Wales needs modern sites and premises to allow businesses to expand and grow, and in doing so create employment opportunities. We know that Welsh Government has an important role to play in ensuring a supply of these premises, to meet demand from both indigenous businesses and inward investors. There is widespread evidence that industrial supply is very tight, relative to demand⁸⁰, and that there are few developers active in the market. Limited capacity is also constraining firms' ability to move to larger premises,

restricting their ability to expand. **Our strategic investments in the commercial property sector will seek to address this limited supply, as well as maximising opportunities to attract and retain investment that would not otherwise come to, or reinvest in, Wales.**

Help to improve business productivity

15. Wales faces a long-standing productivity challenge, with output per hour worked in Wales the lowest⁸¹ of all UK nations and regions, and with this being the main contributor to a Gross Value Added (GVA) gap between Wales and the UK as a whole⁸². Over the long run, productivity is the driver of growth in real wages, the tax base, and living standards. The reasons behind this are many and varied – infrastructure alone cannot solve the problem without investment in skills, research and innovation as well – but capital investment in inclusive and sustainable growth can provide a catalyst to close this gap.

16. The foundational economy, which comprises house building, construction and utilities, is estimated to account for four of every ten jobs in Wales. Business support and access to innovation can help nurture this part of the economy so that it can actively engage in the infrastructure strategy, delivering broad social value encompassing access to fair work, low carbon solutions and enhancing the reputation of Welsh business.

77 gov.wales/sites/default/files/publications/2021-03/llwybr-newydd-wales-transport-strategy-2021-full-strategy_0.pdf – page 69

78 gov.wales/sites/default/files/statistics-and-research/2018-12/060524-economic-effects-transport-infrastructure-improvements-en.pdf

79 HMEA WSRN Analyses v2.pdf

80 gov.wales/sites/default/files/publications/2020-08/market-analysis-and-potential-interventions.pdf – page i

81 Sub-regional productivity: 2002 to 2019 gov.wales/sub-regional-productivity-2002-2019

82 gov.wales/sites/default/files/publications/2019-02/prosperity-for-all-economic-action-plan.pdf – page 2

17. Businesses need to have access to high-quality infrastructure networks – in transport, premises and telecommunications – as well as access to capital in order to start-up, prosper and grow. The Welsh Government is uniquely placed to provide these networks, whilst also ensuring that our investments contribute to our ambition for sustainable growth.

18. Through our support for businesses, applicants need to demonstrate clear and sustainable growth potential, including a contribution to productivity, or multiplier effects through the supply chain. Our investments are deliberately structured to focus on innovation, entrepreneurship and the role that automation and digitalisation can play in reducing this productivity gap. We also know that capital investment in business support has a significant knock-on impact on wider economic performance. For example, through our investment in the creative industries sector, we expect to see a return on investment of £10 for every £1 invested. **We will continue to use our strategic capital investment in Welsh businesses to leverage improvements in the productivity of our industries as well as the wider economic multiplier impact.**

19. Our “Town Centre First” policy seeks to ensure that, as well as public services, new business development and high-skill jobs are increasingly concentrated in town and city centres. Affordable and effective public transport systems support higher density developments in towns and cities –and the productivity benefits that this brings – through the relief of congestion, whilst improved bus infrastructure also increases the passenger capacity of the roads. **Our strategic investment in public transport infrastructure will allow the productivity benefits of the town-centre focus of new business development to be realised.**

20. Investment in infrastructure is crucial to improving the ability of business to implement practical solutions for delivering an increased circularity of materials. We know that in order to go beyond recycling, businesses need access to modern remanufacturing infrastructure⁸³, providing them with the necessary tools to capitalise on high quality uses and markets for secondary materials derived from waste, ultimately reducing costs and making business more efficient. **Our strategic investment in infrastructure will support businesses in Wales to become more resource efficient and avoid unnecessary waste, enabling them to become more productive and competitive.**

21. Digital connectivity is an enabler of all modern economies that been brought even more starkly into focus as a result of COVID-19 – and will be even more so as we move towards the 30% remote working target. The proportion of SMEs using video conferencing leapt from 26 % in 2019 to 57% in 2020⁸⁴, and there are no signs that the relevance of digital delivery will diminish. We know that digital innovation creates new prospects for businesses, attracts future investment and talent, improves job quality and supports the flexibility of work⁸⁵. The infrastructure needed to enable that innovation is essential. Whilst Welsh Government levers are limited in the digital sphere due to the devolution settlement, **where appropriate, we will deliver the Digital Strategy for Wales, upgrading our digital and communications infrastructure to enable businesses to benefit from fast and reliable digital connectivity to gain new customers, sell their products, drive efficiency and innovate.**

22. A lack of appropriate commercial property not only restricts businesses opportunities to boost employment opportunities, but also places a brake on productivity growth⁸⁶. We know that investment in modern property infrastructure offers existing businesses the opportunity to improve productivity,

83 gov.wales/sites/default/files/publications/2021-03/beyond-recycling-strategy-document.pdf – page 26

84 www.cardiff.ac.uk/__data/assets/pdf_file/0006/2477580/DMS-2020-Summary-ENG.pdf – page 3

85 gov.wales/digital-strategy-wales-html#section-66663 Mission 4

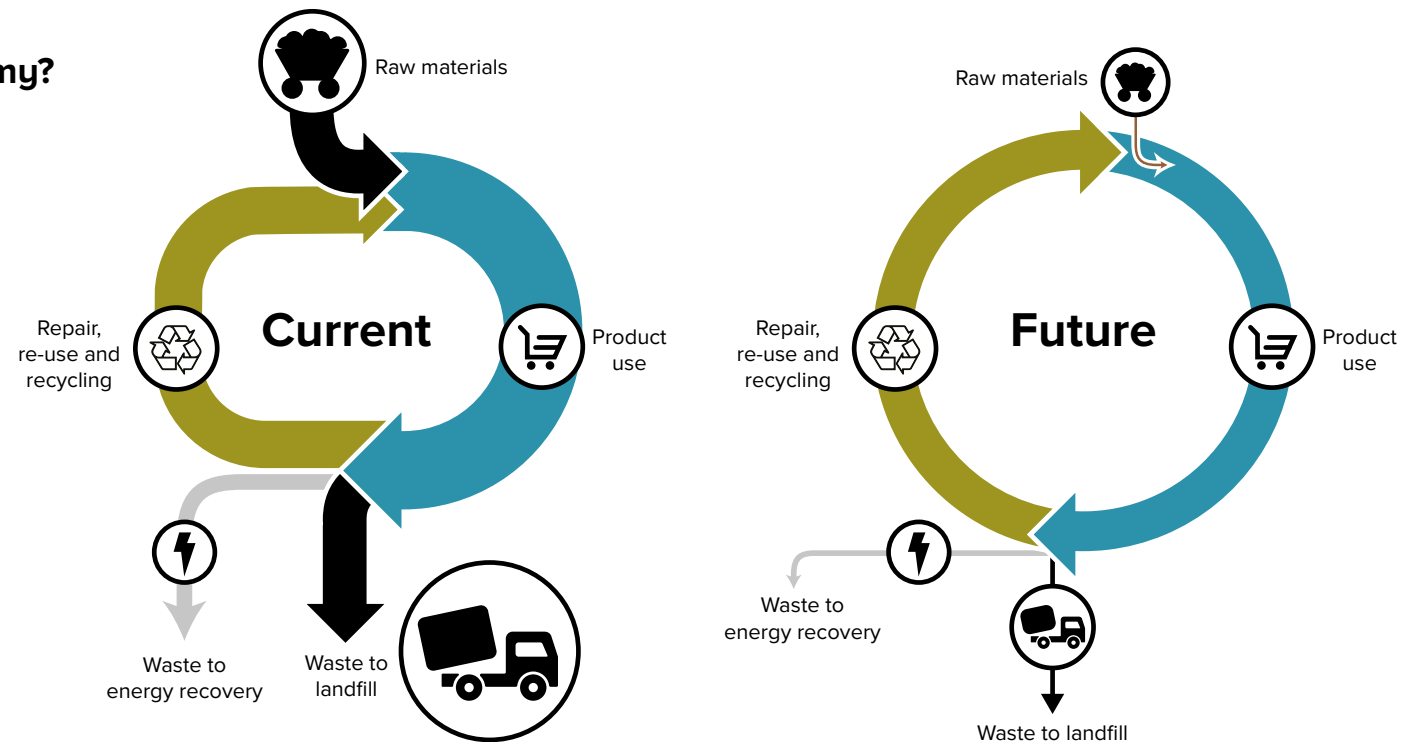
86 gov.wales/sites/default/files/publications/2020-08/market-analysis-and-potential-interventions.pdf – page 68

by relocating from outdated or inefficient premises into a more suitable space. New commercial building stock can also play an important role as a catalyst, encouraging occupiers to invest in new plant and machinery to improve productivity – for example, we know that there is a clear demand for new film and TV studio space in Wales. **Investment in appropriately located, commercial property infrastructure will enable growth in business productivity.**

23. The economic impacts of flooding events are widespread, causing damage to vehicles, buildings, bridges and flood assets themselves. Roads can become impassable, whilst agricultural land and livestock can be lost. Our investments in flooding infrastructure are largely preventative, and are designed to protect against economic damage, as well as social and environmental improvements⁸⁷, by ensuring that businesses do not suffer significant interruptions in their ability to trade. **We will invest in flood management infrastructure to protect the economic interests of business in Wales.**

What is a more Circular Economy?

Reducing the consumption of raw materials



The way we currently use materials is unsustainable and causing the global environmental crisis. If everyone in the world were to consume the same as the average Welsh citizen, 2.5 planets would be required to produce global resources. Moving to a more circular economy will encourage repair, re-use and recycling and needs to reduce the amount of raw materials we use so economic growth is 'dematerialised'. This will contribute significantly towards ensuring Wales' uses only our 'fair share' of global resources.

Increase real household incomes

24. Whilst job creation is an important part of economic well-being, it is important that our capital investments also reflect our commitment to fair work in Wales, where people can access and a secure, fair income through decent life enhancing work.

25. Therefore, as well as job creation and improvements in productivity as covered above, we also know that our support for businesses has a crucial role to play in increasing household incomes across Wales. The foundational economy, estimated to account for four in ten jobs across Wales, is often perceived as being characterised by low pay. Infrastructure investment is an important policy lever to positively disrupt low pay and poor employment practices across Wales. Businesses need high quality skills to compete, and businesses that employ people with high skills are able to pay higher wages. Whilst investment in improving skills is a key driver, it is also important to ensure that business have the necessary capital support to capitalise on opportunities. **We will utilise our direct capital support for Welsh businesses to improve household incomes.**

26. Our vision for renewable and locally owned energy generation infrastructure and technologies supporting a high-renewables system in Wales can play a role in increasing household income from ensuring secure and well-paid jobs – though we expect costs to also increase, and the UK must consider how to manage these in a socially just manner. In addition, such an approach can provide a clear path to retaining profit in the local economy, contributing to prosperity and the incomes of those owning the generation – for example, based on equivalent studies done in the UK, we currently estimate that the exporting of profit from energy use of all types in Wales could account for 6% to 10% of

GVA⁸⁸. Acknowledging that the devolution settlement means that limited levers in respect of energy policy sit with the Welsh Government, **in developing our approach to strategic investment in energy generation, we will consider the impact on household incomes, particularly those in, or at risk of fuel poverty, that such investments can generate.**

27. Our capital investment in childcare facilities that underpin the Welsh Government's childcare offer enables parents to work and train, and therefore help to lift families out of poverty. 50% of parents accessing the offer have the potential to increase their earnings with 56% also noting that the offer had increased their work flexibility. Moreover, the provision of suitable infrastructure allows more providers into the market, with 70% of providers noting that the offer has had a positive effect on the sustainability of their business⁸⁹. **In making our strategic investments in our joined-up education and early years infrastructure, we will improve the ability of working parents to increase their household incomes.**

28. Investment in key public infrastructure can play a significant “anchoring” role in attracting and retaining private investment. For example, investment in new healthcare infrastructure at the Grange University Hospital in Cwmbran has leveraged in investment in a “Medi Park” development, developing links between biomedical and pharmaceutical business and the NHS in Wales. Schemes such as this have can attract skilled and well-paid employment to an area, along with significant regeneration opportunities. **We will ensure that our strategic infrastructure investment in public anchor institutions leverages in high-quality private sector investment.**

⁸⁸ Microsoft Word - Draft Policy Statement on local ownership 27_09_2019 for legal comment

gov.wales/sites/default/files/publications/2020-02/policy-statement-local-ownership-of-energy-generation-in-wales.pdf

⁸⁹ www.arad.wales/wp-content/uploads/2020/10/PN00000460-Privacy-Notice-V1-Eng-Childcare-Offer-and-C-CAS-Evaluation-Year-3-Parents-Survey.pdf

Improve educational outcomes

29. A nation's economic prosperity and well-being are built on the foundations of a strong and successful education system⁹⁰, and the Welsh Government will deliver this through our national mission to raise standards, reduce the attainment gap and deliver a system that is a source of national pride and confidence.

30. We want to ensure that nobody in Wales is left behind after the coronavirus pandemic, repairing the damage done over the last two years. Alongside a programme of reform to our world-leading curriculum, changes to our funding and governance systems for tertiary education, we will continue to invest heavily in our educational estate.

31. As in many cases, the role that infrastructure plays is an enabling one, providing the tools, resources and confidence needed to effectively deliver a service to learners, equipping them with the skills and knowledge that they will need for jobs that have not yet been created and challenges that we are yet to encounter. Investment in digital infrastructure and industry-standard training environments will help prepare young people for the world of work, and reskill adults to keep pace with economic change.

32. There is evidence that high quality, modern infrastructure, can contribute to improvements in the educational outcomes of young people⁹¹ and over 90,000 learners across 176 settings are benefitting from new and improved learning environments since 2016⁹². The National Foundation for Education research indicates that⁹³ learner attitudes had become more positive after the move into the new school buildings. Education infrastructure is also about more than just school fabric; bringing together investment in broader areas such as Early Years, ICT and Further Education at an early

stage, increases the opportunity to provide more joined-up facilities that offer greater benefits to learners. **Our strategic infrastructure investment in our education estate will provide the standards of accommodation and technology needed to enable learners to reach their full potential.**

33. Our capital support to the Higher Education sector enables the provision of improved learning and teaching spaces, with a direct benefit to the education of students in Welsh Higher Education Institutions. A range of factors, not least the impact of COVID-19, are likely to lead to long term shift in how Higher Education is delivered, including a reduction of the amount or duration of in-person teaching, with some element of estates reorganisation likely. **We will invest in infrastructure to support the Higher Education sector to meet these ongoing challenges.**

90 gov.wales/sites/default/files/publications/2018-03/education-in-wales-our-national-mission.pdf – page 3

91 www.core.ac.uk/download/pdf/42587797.pdf – page 3

92 gov.wales/sites/default/files/publications/2020-10/education-in-Wales-our-national-mission-update-october-2020.pdf – page 15

93 1 (ed.gov) www.files.eric.ed.gov/fulltext/ED502369.pdf



Chapter 7

Cultural Well-Being

Overview

1. Our vision is of a Wales that promotes and protects culture, heritage and the Welsh language, and which encourages people to participate in the arts, culture, heritage and sports and recreation. We know that the arts, tourism and sport are vital parts of both Welsh identity and our economy, and that the Welsh language is a national treasure which belongs to every individual in Wales.

2. We have distinctive opportunities to capitalise on our status as a bilingual nation, increasing the opportunities and benefits that the Welsh language brings. We must also ensure that the unique aspects of our culture, our passion, our wonderful historic and natural environment and our strong sense of community are maximised – not simply as a tool to drive economic growth, but also in recognition of the intrinsic role that cultural well-being plays in a modern society.

Improve access to and increase use of the Welsh Language

3. The Welsh language is part of what defines us as people and as a nation, and its protection and promotion will require a contribution from us all – from fluent Welsh speakers, to new speakers learning the language, and those who do not consider themselves to be Welsh speakers.

4. It is against this backdrop that we set our ambition to increase the number of Welsh speakers to 1 million, and increase the percentage of the population that speak Welsh daily, and can speak more than just a few words of Welsh, from 10% to 20% by 2050.

5. In order to reach our 2050 target, we will need an additional 438,000 Welsh speakers. Whilst this is not the sole responsibility of the statutory education sector, we know that this is one of the key levers that we need to utilise to be successful⁹⁴, and that we will need to invest in the reconfiguration of our educational estate in order to improve and increase Welsh language provision. Specific grant funding has been made available to local authorities since 2018 to deliver joined up Welsh medium education and childcare infrastructure, with 49% of the Childcare Offer capital invested for Welsh medium and nearly 6% for bilingual childcare provision. This investment delivers additional Welsh medium provision, helps to attract pupils to the Welsh medium sector,

and provides opportunities for children who do not come from Welsh medium families to socialise and play through the medium of Welsh. **We will ensure that our capital investments in improving our education estate and expanding our Welsh language early years provision supports our ambition of reaching 1 million Welsh speakers by 2050.**

6. For the Welsh language to thrive it needs to be an asset that we maximise externally, and not just for Welsh residents. We know that investment in our tourism, events and creative sectors provides the accommodation, facilities and infrastructure that enable our young people to work in their communities, and for our guests to learn about, access and enjoy Welsh culture and language⁹⁵. The investments that we make to support tourism and events businesses require explicit promotion and protection for the Welsh language, and **we will continue to ensure that our capital support for the tourism, events and creative sectors supports our Welsh language targets.**

7. There are also broader ways to leverage our investment in a wide range of infrastructure to enhance access to the Welsh language. For example, whilst the Welsh Language Standards apply explicitly to public bodies, Llwybr Newydd sets out the ambition of a network of public transport infrastructure which encourages commercial and third sector operators to increase the use of Welsh across their services⁹⁶. We also know that good quality jobs and places that are attractive to live, work and invest in will provide people with a reason to remain or return to communities where the Welsh language thrives. **Our strategic infrastructure investments will therefore play a crucial enabling role for a society and economy that encourages and maximises the use of the Welsh language.**

Encourage access to and participation in cultural activities, including the arts and heritage

8. Our cultural assets and cultural activities are wide ranging, and include investment in the arts, music, literature, museums and heritage – or put another way, all of the creative activities that give people purpose and a sense of belonging⁹⁷.

9. Investment in culture is central to our society and our sense of nationhood, has intrinsic value and we know the importance that the people of Wales place on cultural activities. 71% of people aged 16 and over in Wales saying they had attended or participated in an arts, culture or heritage activity three or more times in 2019-20⁹⁸.

10. These high levels of engagement show the need for spaces to showcase and engage with cultural activities, be it theatres, music venues, art studios, or community centers, as well as spaces to care for our collections and the material culture that helps tell our nation's and communities' stories – our historic libraries, archives and museums. Many of these are housed in older buildings that need to be repaired and maintained, as well as upgraded to meet new standards, and demonstrates the importance of major repair and maintenance as well as new infrastructure. However, our culture and history is far more diverse than just castles and choirs, and we will ensure that the history and culture of our Black, Asian, and Minority Ethnic communities are properly represented by our infrastructure investments. **Our direct capital investments in the cultural sector will provide the high quality facilities and access required to continue to deliver Wales' unique and diverse culture offer.**

⁹⁵ gov.wales/sites/default/files/publications/2020-02/welcome-to-wales-priorities-for-the-visitor-economy-2020-2025.pdf

⁹⁶ gov.wales/sites/default/files/publications/2021-03/llwybr-newydd-wales-transport-strategy-2021-full-strategy_0.pdf – page 35

⁹⁷ gov.wales/sites/default/files/publications/2019-06/arts-and-culture-vision-statement-light-springs-through-the-dark.pdf – page 2

⁹⁸ National Survey for Wales: results viewer gov.wales/national-survey-wales-results-viewer

11. In many cases, our broader cultural offer is showcased to the world through our important tourism, events and creative sectors, allowing Welsh culture to enrich our visitors' experiences. Our support for major and indigenous events in Wales is driven by, amongst others, widening access and encouraging participation in the arts. Our strategy for tourism⁹⁹ makes clear that value over volume is a key cornerstone of our approach to the visitor economy in Wales. This approach enables people to enjoy experiences that draw upon the rich culture and heritage that Wales has to offer, whilst enhancing our communities and their way of life. **Our capital support will ensure that we are able to maximise the use of our cultural assets to support both the tourism industry itself, and our communities more broadly.**

12. COVID-19 has forced us to consider different ways of delivering and consuming cultural activity, with restrictions on traditional, physical audience gathering. Our digital connectivity infrastructure underpins and enables the online functionality that cultural and heritage organisations rely on to deliver new and innovative ways of interpreting and presenting content – such as the broadcast of live events from key to audiences unable to attend venues as well as the digitising of the collections themselves. **Our investments in digital infrastructure will ensure that our cultural institutions are best placed to manage the continuing technological shift.**

Wales' core offer



⁹⁹ Welcome to Wales: priorities for the visitor economy 2020 to 2025
gov.wales/sites/default/files/publications/2020-01/welcome-to-wales-priorities-for-the-visitor-economy-2020-to-2025.pdf

13. Wales benefits from an extensive and unique historic environment, including buildings, landscapes, monuments and archaeological sites dating from prehistory through to the Cold War. These historic assets are essential contributors to cultural well-being. Many are also core tourist attractions – over a third of UK day visitors to Wales visit a castle or historic monument¹⁰⁰. **Our investment in our heritage assets will reflect the distinctive history of Wales, recognising the inherent value of protecting such assets as well as the broader benefit to the tourism industry.**

Improve participation level in sport and recreation

14. Sport holds a fundamental place in the fabric of Welsh tradition and culture and is an important part of how we see ourselves, and how others see us.

15. Increasing participation in sports and recreation not only allows people in Wales to live more active, healthy lives, but also enriches and develops peoples cultural and social lives, and binds our communities and nation together¹⁰¹. Therefore improving participation rates is both a goal in and of itself, as well as a key lever to deliver wider benefits.

16. We know that investment in modern and appropriate facilities is critical to ensuring that the public are able to access and participate in sporting activities, as well as delivers a social return on investment of £2.88 for every £1 invested¹⁰². Research shows that 49% of all adults in Wales in 2019-20

would like to do more sport or physical activity¹⁰³, ¹⁰⁴ – which translates to more than 1.2 million people – and **we will ensure that our strategic investment in Wales’ world-class sport infrastructure, including 4g pitches, can support future generations to participate in sport.**

17. Investment in modern and high quality schools and colleges goes beyond the traditional classroom environment. Targeted enhancement and replacement of education infrastructure can include the provision of modern sports facilities, encouraging both curricular and extra-curricular participation. In addition, there is an important role that our schools and colleges play in wider community use, in providing specialist or sporting facilities which can be used by local people. **Our investment in our education estate will maximise opportunities for participation in sports and specialist activities, both in terms of learners and the wider community.**

18. Recreation is far broader than organised sport, and we know that participation in outdoor recreation is very high in Wales, with 81% of adults living in Wales taking part in one or more activity at least once in each year¹⁰⁵. Capital investment in our natural environment plays a key role in enabling this, including through enabling public rights of way and open access land. In addition, we know that the Welsh forest estate also provides significant recreation benefits – with the non-market values of recreation exceeding those of marketable goods like timber and other non-marketable goods such as carbon sequestration¹⁰⁶. **In making strategic capital investments in our natural landscapes, we will reflect the important role they play in enabling recreation.**

¹⁰⁰ 2019 Wales Visitor Survey

¹⁰¹ gov.wales/sites/default/files/publications/2019-06/climbing-higher.pdf

¹⁰² www.sport.wales/content-vault/social-return-on-investment-in-sport/

¹⁰³ National Survey for Wales: results viewer gov.wales/national-survey-wales-results-viewer

¹⁰⁴ Sport and Active Lifestyles Survey www.sport.wales/content-vault/sport-and-active-lifestyles-survey/

¹⁰⁵ National Survey for Wales 2016-17 Key Facts for Policy & Practice- Outdoor Recreation

www.naturalresources.wales/media/684900/national-survey-for-wales-2016-17-key-facts-for-policy-and-practice-outdoor-recreation.pdf

¹⁰⁶ Environment and Rural Affairs Monitoring & Modelling Programme www.erammp.wales/sites/default/files/ERAMMP%20Rpt%2024%20NNCA%20v1.0.pdf

Improve investment in communities across all parts of Wales

19. It is important that our infrastructure investments recognise the distinctively Welsh value of community, as well as understanding that the needs of communities will differ right across Wales. For communities to be sustainable they need to provide people with places to live, work and play, and our strategic investment in infrastructure can ensure that the fabric is put in place for our communities to thrive, and for our towns and cities to be sources of civic pride, confidence and wellbeing.

20. Our communities are unique and special, and each has its own proud history, sense of place and memory. Our regeneration investments are designed to create sustainable places right across Wales for people to enjoy and be entertained, reflecting the differing needs of differing communities. Our Valleys Task Force investments and the establishment of a Ministerial brief for North Wales are clear demonstrations of our commitments to investment across Wales.

21. For elements of this investment, we purposely allow local authorities and other delivery partners the flexibility to choose the towns where they wish to deploy funding, enable support for smaller towns that might have hitherto missed out, and the development of town and high street masterplans which will continue to ensure this place-based approach to our investment. Investing in our cultural estate, including historical and iconic town centre properties can ensure that the sort of buildings that create a sense of place are protected and maintained. **In making strategic investments in our regeneration programmes, we will ensure that a pan-Wales, place-based approach is taken.**

22. The Welsh Government's investment in commercial property, whilst primarily designed to deliver economic policy, aims to ensure that provision is also made available in line with broader policy considerations, including a town centre first approach. Increased workspace capacity within, for example, market towns and smaller settlements is an important driver in creating and protecting the vitality of the local communities. **Through our strategic investment in commercial properties, we will seek to maximise the benefits of a town centre first approach for communities.**

23. Similarly, our investment in increasing the supply of housing in Wales has a role to play in placemaking. Ensuring that developments are aligned with the broader planning and land use policy frameworks means that we are able to deliver communities with access to all the services and facilities they need. Equally, we know that Gypsies and Travellers are some of the most marginalised groups in society¹⁰⁷, and our capital investments must support Local Authorities to meet their accommodation obligations under the Housing (Wales) Act 2014. We will also consider how our approach to investment in housing supply can work to address the issue of second home ownership in Wales pricing out local communities. In addition, whilst the age profile of housing stock in Wales creates challenges in terms of energy efficiency, many of these are traditional buildings that contribute to our historic environment, create Wales's distinctive character and provide our sense of place. It is important that our retrofit investments are undertaken with this sensitivity in mind. As well as ensuring that communities have places to work and play, **we will ensure that our strategic investment in housing provides sustainable communities with high quality places to live.**

Chapter 8

Delivery of the Wales Infrastructure Investment Strategy

Overview

1. The preceding chapters of this document have set out the strategic outcomes that investment in infrastructure in Wales must enable, intrinsically linked to the four domains set out in the Well-Being of Future Generations (Wales) Act.
2. We are clear however that these outcomes can only be achieved by ensuring that the investment decisions that are made completely reflect those priorities, and that programmes are selected on a robust evidence base that clearly demonstrates why they are the most effective intervention.
3. This chapter sets out how the outcomes will be delivered, not only in respect of direct Welsh Government spending, but also in terms of wider infrastructure investment by both the public and private sectors.

Welsh Government delivery of the Strategy

4. This is a long-term vision for infrastructure investment, spanning the next decade. Whilst that vision will remain consistent, the fast-paced nature of change – technological, demographic and economic – means that what is the most appropriate investment programme today, may not be in 5 years' time.

5. Therefore, any delivery mechanism needs to be agile enough to respond to such changes, by ensuring that there are frequent opportunities to revisit the investment programmes.

6. In terms of Welsh Government investment, this will be through the delivery of a series of IFPs, the first of which is being published alongside this Strategy. Taking the budget settlement from the Spending Review, the first IFP sets out which key capital programmes we will invest in over the next three years.

Selection and funding of infrastructure programmes

7. The primary lever in delivering this Strategy, is ensuring that the suite of infrastructure programmes selected and funded through the first IFP collectively deliver the outcomes identified. However, as set out in the “cross-cutting principles” chapter, a framework for selecting infrastructure programmes for investment can only be as effective as the proposals it is prioritising between. The investment lever is dependent on infrastructure proposals submitted having been planned, designed and developed through not only the well-being lenses, but in a way that embodies those cross-cutting principles.

8. In setting the first IFP, and the investments contained within it, delivery of Programme for Government commitments¹⁰⁸ have been prioritised in line with the outcomes identified in this Strategy. The budgets underpinning the IFP have been built from as near to a “zero-base” as is possible, and reflect the step change in approach to the primary requirement for this Strategy to support a zero-carbon economy.

9. Specifically, an assessment of the carbon impact of infrastructure programmes put forward for funding has been required, ensuring that environmental considerations are factored into every decision we take, alongside value for money and affordability considerations. In submitting proposals for the development of the IFP, and the budgetary decisions that finance those proposals, Welsh Government departments have also had to demonstrate how their proposals embody the development principles set out in our National Development Framework, “Future Wales”¹⁰⁹.

10. We are also mindful that the investments made now will, in many cases, be with us for many decades to come, and that it is crucial that our investments are designed to maximise impact over the longer term. That is why, in developing infrastructure proposals, departments had to provide an assessment as to how the proposals have been “future-proofed”. In particular, resilience to demographic and climate changes, ability to respond to technological evolution, susceptibility to economic changes and tackling long-term inequality were tested, in line with the second statutory “Future Trends”¹¹⁰ report published by Welsh Government.

Departmental deployment of budgetary envelopes

11. However, we know that the budgetary allocations made at investment area level through this process are only one aspect of decision-making, and that successful delivery is dependent

on all individual project allocations also embedding the principles in this Strategy.

12. It is crucial that we recognise a step-change in approach is required right across Welsh Government to fully embed and maximise delivery against this Strategy. Specifically, advice provided to Ministers must demonstrate clearly how the specific use of a particular budget allocation will contribute towards the strategic objectives which that budget was allocated to achieve. Only by successfully implementing this behavioural change on the ground, will budget-holders optimise the delivery of the Programme for Government commitments aligned to the outcomes of this Strategy.

Evaluation and monitoring

13. Equally, we must be able to assess how successful this strategic framework is, in practice, in prioritising investments that deliver the outcomes set in the Strategy. Welsh Government infrastructure investments made under the WIIS will be required to undertake a robust evaluation of the contribution they have made to those outcomes.

14. The setting of shorter term delivery plans that underpin the Strategy provides an opportunity to ensure that our investments are realising these outcomes, by building this evaluatory requirement into the development of subsequent investment packages. We will consider in more detail the evaluation and benefits realisation expectations on budget holders in respect of the financial allocations made in this round, that will be required to support submissions in future funding rounds.

¹⁰⁸ gov.wales/sites/default/files/publications/2021-06/programme-for-government-2021-to-2026.pdf

¹⁰⁹ Update to Future Wales - The National Plan 2040 gov.wales/sites/default/files/publications/2021-02/future-wales-the-national-plan-2040.pdf

¹¹⁰ Future Trends, National Indicators and National Milestones: Consolidated plan for 2021

gov.wales/future-trends-national-indicators-and-national-milestones-consolidated-plan-for-2021-html (2nd report should be published December 2021)

Governance

15. It is important that we consider how departmental planning, design and development of infrastructure proposals can be better supported across the organisation to embed the broader cross-cutting principles and maximise delivery against this Strategy. Our focus will be on considering in more detail how Welsh Government internal processes might best be utilised to reinforce this step-change in approach, ensuring that every opportunity is taken to join-up service delivery across the whole public sector in Wales, with placemaking at the heart of this approach.

16. This will include considering the most effective and efficient role our PPM tools – such as an enhanced training offer for project and programme managers and Senior Responsible Owners – can play in upskilling the organisation and embedding those core principles. There may also be an enhanced role that our assurance processes, such as Gateway reviews, can play. Integrated assurance is a crucial governance tool to ensure integrated planning and delivery, from setting the right outcomes and objectives, through taking key decisions in the project lifecycle, to testing that the benefits have actually been realised.

17. We will also look at how to maximise the impact of our cross-departmental machinery – focusing particularly on cross-departmental groups which have a role in strategic investment – to drive best practice and improve joined up development across the Welsh Government. This will include, for example, ensuring there is transparency regarding infrastructure proposals that are planned or in development.

18. The IFP published alongside this Strategy sets out investment in programmes up until the end of the 2024-25 financial year. A second IFP will then be agreed – dependent on subsequent Spending Review outcomes – setting out a refreshed suite of programme investments that will continue to deliver this Strategy in the most effective way.

Working with our partners

19. Infrastructure investment in Wales however is far broader than just Welsh Government investment. For example, in the most recent Infrastructure Project Pipeline published in March 2021¹¹¹, of the £29.9bn of investment set out, only £9.5bn was in respect of Welsh Government investment.

20. We must therefore also consider how we can work with our partners in the broader public and private sectors, to ensure as far as possible, that infrastructure investment delivers the same strategic outcomes as direct Welsh Government investment.

Public Bodies in Wales

21. All public bodies in Wales are bound by the terms of the Well-Being of Future Generations (Wales) Act and must therefore carry out sustainable development, in improving the economic, social, environmental and cultural well-being of Wales. Public bodies must set and publish well-being objectives, and report on an annual basis on the progress made in meeting their well-being objectives.

22. We have an ambition for a net zero carbon public sector by 2030. The Partnership Council, made up of representatives of local authorities, NHS, Fire and Rescue Authorities, town and community councils, the voluntary sector, Police and Crime Commissioners and Welsh Government, provides the leadership, vision and strategic oversight of this work.

23. However, beyond this, there are a range of levers that Welsh Government can utilise to ensure that public sector investment in Wales works towards the outcomes specified in this Strategy.

111 Wales Infrastructure Investment Pipeline
gov.wales/sites/default/files/publications/2021-03/wales-infrastructure-investment-plan-project-pipeline-2021.pdf

24. A road map to building net zero homes has been developed setting out the low carbon standards homes must be built to and by when. This aims to simplify the landscape for developing social landlords, and provide certainty to allow the Welsh supply chain to invest and be able to service ambitious social house building numbers.

25. Welsh Development Quality Requirements 2021 (WDQR2021) will significantly improve energy efficiency in new social homes and reduce carbon emissions by requiring higher fabric standards and moving away from the use of fossil fuels for heating and hot water. Further greening of the electricity grid and the use of onsite renewable energy with energy storage and intelligent controls will lead to the net zero carbon homes we are aiming for.

26. WDQR2021 requires housing providers to adopt best practice in moving to a decarbonised and circular built environment and encourages whole life carbon assessment and post occupancy evaluation of the homes' performance. Our goal is for the same standards to be applicable to all new homes from 2025, as recommended by the Independent Review of Affordable Housing Supply (2019).

27. Welsh Government has worked with each of the four regions in Wales to look at the economic opportunities that will come from the transition to a low carbon energy system. The Regional Energy Strategies start to identify the scale of change needed to reach a low carbon energy system, and establish regional priorities for a low carbon energy system. This work models future demand for power, heat and transport and contains an economic assessment of the impact of delivering the proposed ambitions. Local Area Energy Planning (LAEP) builds on the work of the regional energy strategies, taking a more detailed approach to identify the low regret actions to decarbonise a local energy system.

28. We are supporting two LAEP pilots in Conwy and Newport Local Authority areas and intend to roll out this approach across all regions of Wales. We anticipate this work will identify a pipeline of projects across energy efficiency, generation, transport and heating that can be considered for public and private sector support.

29. Ystadau Cymru (YC)¹¹² is an organisation made up of representatives from right across the Welsh public sector which encourages excellence in active management of the public sector estate, and supports and facilitates opportunities to take a more strategic approach to property and property management. Through the work of YC we will ensure that the management of our existing estate contributes to the same strategic outcomes that investment in new infrastructure can deliver.

30. We will continue to use the suite of levers at our disposal to maximise the strategic outcomes that investment in infrastructure by the wider Welsh public sector can deliver.

Local Government

31. Whilst significant capital spend through local government is made up of specific grant funding (for example, the Welsh Government contribution to delivery of the 21st Century Schools programme, or flooding infrastructure), we also provide unhyphenated capital funding and supported capital borrowing.

32. We recognise that local authorities are accountable to their own local electorate, and it is right that they are able to allocate funding to their own local priorities.

33. Nevertheless, there are many areas in which Welsh Government and Local Government priorities align, and it is important that we work in partnership to maximise the benefits of public investment.

¹¹² Terms of reference: Ystadau Cymru gov.wales/ystadau-cymru/terms-reference#section-31085

34. Political arrangements exist to promote joint working and co-operation between the Welsh Government and local government through the Partnership Council for Wales¹¹³, the Finance sub group and the supporting officials level sub group, the Capital Finance and Investment Group.

35. This group has considered how to ensure that preferential borrowing rates provided through the Public Works Loan Board can be used to support shared priorities and encouraged the use of mutual investment models for schools buildings. Our shared ambition to achieve a net zero public sector is being developed and driven through the work of the Decarbonisation Sub Group and the Partnership Council.

36. Our overall financing approach to infrastructure delivered through our local government partners can also ensure that our joint strategic outcomes are delivered. For example, the Welsh Government's financial investment in the 21st Century Schools and Colleges (soon to be "Sustainable Communities for Learning") programme leverages a contribution from local government general capital budgets or borrowing, and the setting of intervention rates for specific grants can help to ensure that our mutual infrastructure ambitions are met.

37. We will continue to work closely with our local government partners, both in terms of political and official engagement, and financing levers, to drive the benefits of our investment.

UK Government

38. Our investment capacity in some key infrastructure sectors is constrained as a result of the devolution settlement – in particular, elements of Digital, Energy, Aviation and Rail¹¹⁴. Whilst this Strategy has set out previously how we plan to utilise our limited funding levers in these spaces, we must also consider how to ensure that UK Government infrastructure investment also delivers on the outcomes set out in this Strategy.

39. We have been clear and consistent in our position that the UK Government should agree to our proposals for the full devolution of rail services and infrastructure in Wales. Alongside this, **we will continue to push for a full and fair funding settlement to ensure that Wales is able to maximise benefit from investment in our railways, including the need for urgent decarbonisation of the network at the earliest opportunity in order to deliver our carbon budgets.**

40. Welsh Government will also consistently and actively seek the UK Government's commitment to reduce and, in time, eliminate the extraction and consumption of fossil fuels, and to invest in the zero carbon economy of the future. Our energy system is fundamental to almost every area of Welsh life, and a decarbonised energy system is crucial to delivering Wales' net zero ambitions. Transforming this to a more localised, flexible and smarter low carbon system will be a vital part of delivering a sustainable future for Wales.

41. Investment in energy networks is regulated by Ofgem. Welsh Government is working with networks to take a long term view of the grid Wales will need for 2050. Ministers have engaged with the Ofgem Board, and officials are working with Ofgem and the networks to achieve a balance between networks that enable decarbonisation and ensuring energy remains affordable. This is likely to need a transformation in the regulatory and financial landscape, and we will encourage the UK Government to move at pace on this. Welsh Government will also be actively encouraging network operators to access the Strategic Innovation Fund Ofgem operates to fund network innovation in Wales.

¹¹³ Partnership Council for Wales gov.wales/partnership-council-wales

¹¹⁴ CP 329 – National Infrastructure Strategy – Fairer, faster, greener – November 2020

42. Mission 5 in our Digital Strategy¹¹⁵ sets the ambition for a Wales in which digital services are supported by fast and reliable infrastructure. We will work closely with the UK Government and Ofcom to ensure that we understand market plans, and to provide us with the opportunity to influence UK policy – for example, establishing protocols and processes with UK Government to support the UK schemes such as Shared Rural Network and the Gigabit Broadband Programme. **We will continue to work with the UK Government to ensure that actions taken within reserved competence are actions that are right for Wales.**

43. Crucially, the UK Government must also enable us to maximise the value of investment in Wales by reversing its decision to withhold the £375m of annual EU Structural Funding the Welsh Government has historically invested to deliver a wide range of national programmes which are essential to our reconstruction effort. The UK Internal Market Act's financial assistance powers must only be used to create new UK-wide programmes in devolved areas of responsibility with the explicit consent of the devolved governments. **We will continue to push the UK Government to ensure that EU funding is replaced in full, and that decision-making in terms of how that funding is spent sits with the Welsh Government, in line with the devolution settlement.**

Private Sector

44. The most recent Infrastructure Investment Pipeline update¹¹⁶ set out planned infrastructure investment by the private sector (in public services) of over £7.2bn, comprising of £763m (Water), £4.7bn (Energy), £1.7bn (Network Rail). However, the announcement of the UK Government in respect of the nationalisation of Network Rail as part of Great British

Railways means that rail infrastructure investment has been considered under the UK Government section above.

45. Electricity and heat generation accounted for 19% of Welsh emissions in 2019, making it the second largest emitting sector. Major oil and coal fired generation has now ceased in Wales, and Net Zero Wales makes it clear that we see no role for further fossil fuel power plant in Wales, nor replacing our current fleet of plant with alternatives which may themselves be the source of greenhouse gas emissions.

46. Planning Policy Wales¹¹⁷ makes clear that all new developments are expected to mitigate the causes of climate change in accordance with the planning energy hierarchy. This hierarchy places a priority on reducing demand and ensuring energy efficiency in developments, alongside increasing renewable energy generation.

47. In addition, Future Wales¹¹⁸ makes clear that in determining planning applications for renewable and low carbon energy development, decision makers must give significant weight to the need to meet Wales' international commitments and our target to generate 70% of consumed electricity by renewable means by 2030 in order to combat the climate emergency.

48. In Pre Assessed Areas for Wind Energy the Welsh Government has already modelled the likely impact on the landscape and has found them to be capable of accommodating development in an acceptable way. There is a presumption in favour of large scale wind energy development in these areas.

¹¹⁵ Digital strategy for Wales gov.wales/digital-strategy-wales

¹¹⁶ Wales Infrastructure Investment Pipeline gov.wales/sites/default/files/publications/2021-03/wales-infrastructure-investment-plan-project-pipeline-2021.pdf

¹¹⁷ Planning Policy Wales – Edition 11 gov.wales/sites/default/files/publications/2021-02/planning-policy-wales-edition-11_0.pdf – Page 90

¹¹⁸ Update to Future Wales – The National Plan 2040 gov.wales/sites/default/files/publications/2021-02/future-wales-the-national-plan-2040.pdf – Page 95

49. Additionally, whilst the licensing of offshore hydrocarbon exploitation is not devolved, the Welsh National Marine Plan¹¹⁹ includes policy requiring offshore marine oil and gas developments with land based elements to be compatible with the Welsh Government's decarbonisation approach, with the intention, as far as possible, to discourage offshore extraction. **We will use the planning policy levers at our disposal to continue to mitigate the impact of new infrastructure developments, as well as prioritise new energy generation infrastructure in line with the energy hierarchy.**

50. The Welsh Government is currently considering ways to streamline and simplify the consenting process for major infrastructure, including renewable energy, in Wales, and have consulted on the introduction of a unified Welsh Infrastructure Consent. The intention of the process is to provide a one-stop shop which simplifies the consenting process and provides greater certainty for developers and participating communities. **We will work towards introducing a Bill in the near future which realises the ambition of a Welsh Infrastructure Consent, to help deliver our goals in relation to decarbonisation, sustainable journeys and supporting innovation in renewable energy.**

51. Regulation and licensing of the water industry in Wales is a complex topic. Ofwat is responsible for economic regulation of the water and sewerage sector. The Drinking Water Inspectorate is responsible for providing independent reassurance that water supplies are safe and drinking water quality is acceptable to consumers. Natural Resources Wales is responsible for environmental regulation. Welsh Government is responsible for providing strategic direction for water policy, and water and sewerage companies (such as Dwr Cymru and Hafren Dyfrdwy) are responsible for providing water supply and sanitation, including infrastructure delivery.

52. Our guiding principles for the development of Water Resources Management Plans by water and sewerage companies¹²⁰ sets out clearly that the plans must focus on delivering towards improving the social, economic, environmental and cultural well-being of Wales, with a strong driver on low carbon. In terms of investment in infrastructure, our water strategy states a presumption in favour of sustainable solutions, and evidence of their use in preference to expanding or renewing existing infrastructure capacity¹²¹.

53. Water companies are currently developing Drainage and Waste Water Management Plans, and our ambition is to place these on a statutory footing. These plans will set out the improvement required in terms of drainage and waste water over a 25 year period.

54. Even though Dwr Cymru are not bound by the terms of the Well-Being of Future Generations (Wales) Act, their Wellbeing Report¹²² recognises the unique responsibilities which they face as a provider of essential, public services to over three million people. Their net zero strategy aims to achieve carbon neutrality by 2040, and Hafren Dyfrdwy are committed to net zero operational emissions by 2030. **We will continue to work collaboratively with the water industry to ensure that their investment in infrastructure maximises the investment benefits whilst prioritising sustainable solutions.**

55. As well as those sectors currently captured in the pipeline, there is a significant amount of broader private sector investment in infrastructure in Wales. Where Welsh Government financial levers are limited, we must consider how we can utilise our broader levers to ensure that all infrastructure investment in Wales contributes to delivery of our strategic outcomes, and in particular, how they can support a zero-carbon economy.

119 Welsh National Marine Plan gov.wales/sites/default/files/publications/2019-11/welsh-national-marine-plan-document_0.pdf

120 gov.wales/sites/default/files/publications/2019-06/water-resources-management-plan-guidance.pdf

121 Health standards framework english gov.wales/sites/default/files/publications/2019-06/water-strategy.pdf – page 34

122 Our Wellbeing Report 2020 EN.pdf

56. Within the housing construction sector, we will maximise the use of Building Regulations to ensure that private developments also work to deliver a zero-carbon economy.

Our response to the 2020 review of Part L of the Building Regulations for new homes sets out our decision to introduce a 37% reduction (compared with current standards) in carbon emissions for new dwellings from 2022¹²³. All new homes will also need to be future-proofed, to make it easier to retrofit low carbon heating systems.

57. The 37% reduction is a stepping stone towards the next changes to energy efficiency in Building Regulations in 2025, where new homes will need to produce a minimum of 75% less CO₂ emissions than ones built to current requirements.

58. The role that private investment in housing infrastructure plays is equally as crucial in developing vibrant communities, as it is in addressing the climate emergency. Planning Policy Wales puts place making at the heart of developing, and requires an integrated approach that ensures communities have all the services they need within easy reach and that development is of high design quality.

Placemaking principles require the consideration of outcomes rather than simply numbers of homes, and reducing social inequalities is central to this – affordable housing sites should not be inferior in any way to sites which are being promoted for market housing. **We will ensure that the application of planning policy in Wales enables the delivery of vibrant Welsh communities through private housing developments.**

59. We know that delivering the charging facilities to meet the needs of electric vehicle users will be a significant challenge, and one which has been brought clearly into focus in light of the UK Government's decision to ban the sale of new fossil fuel powered cars in 2030. Whilst this document has already

set out our strategic approach to investing in the necessary infrastructure, we are clear that private sector investment in commercial opportunities will be necessary¹²⁴. Our Electric Vehicle Action Plan (EAVP)¹²⁵ sets the outcomes that we must achieve to ensure that, by 2025, users of electric cars and vans in Wales are confident that they can access electric vehicle charging infrastructure when and where they need it.

60. We have committed to deliver a zero tailpipe emission bus fleet by 2028, the most ambitious total internal combustion engine phase out date for busses anywhere in the world. Whilst this will in part be delivered by direct Welsh Government investment, we will also establish “Bus for Wales” – a public/private partnership to procure and make available to operators high quality Ultra Low Emission Vehicle buses through leasing, both electric battery and hydrogen fuel cell.

61. We know that the importance of mobile connectivity is growing, with mobile phone ownership in Wales now standing at over 90% of adults. Our Mobile Action Plan¹²⁶ sets out how we will work together with the mobile phone industry and the regulator to provide connectivity to meet these needs of people in Wales. Planning Policy Wales required planning authorities to actively engage with mobile operators when preparing development plans, to discuss service provision and identify where coverage is limited or is not being provided.

62. We will also work to facilitate relationships between mobile network operators and mobile network infrastructure providers, and estates managers and other interested parties in Welsh public sector bodies, in order to ensure the best use of public assets to deliver private mobile connectivity. **We will maximise use of our levers to support and encourage private sector operators and service providers to invest in sustainable solutions.**

¹²³ gov.wales/sites/default/files/consultations/2021-03/summary-of-responses-building-regulations-part-l-review.pdf

¹²⁴ Electric Vehicle Charging Strategy gov.wales/sites/default/files/publications/2021-03/electric-vehicle-charging-strategy-wales.pdf

¹²⁵ Electric vehicle charging strategy for Wales: action plan gov.wales/sites/default/files/publications/2021-09/electric-vehicle-charging-strategy-for-wales-action-plan.pdf

¹²⁶ Mobile Action Plan gov.wales/sites/default/files/publications/2019-06/mobile-action-plan.pdf

Annex A

Review of 2012 WIIP

Wales Infrastructure Investment Plan 2012

1. The Wales Infrastructure Investment Plan (WIIP) for Growth and Jobs was our first 10 year, cross-governmental infrastructure strategy, designed to prioritise and coordinate delivery of our major infrastructure investments. In addition, the WIIP set out our vision to maximise Wales' capital spending power through the use of existing resources, secure additional sources of funding and utilising new innovative forms of finance.
2. We have made significant progress since 2012 in the delivery of the WIIP's goals and priorities. While the following chapter highlights some of the more noteworthy achievements and explains some of the challenges we have addressed it is not intended to be a fully encompassing evaluation of our original aims.

Progress

3. While some of our priorities may have evolved, the core goals of the WIIP still reflect our overarching principals to deliver these infrastructure requirements of Wales, maximising all the levers available to us to boost capital funding and prioritise our investment in ways that deliver the most benefit in line with those priorities.

4. Our declaration of a climate emergency in 2019 signalled a step change in our approach for infrastructure in Wales. This includes investment in active travel and an electric bus fleet, new ways of building housing, enhancing our most ecologically important sites and the development of a National Forest to extend the full length of our country.

5. We have committed to achieving a carbon neutral public sector by 2030 and to coordinating action to help other areas of the economy to make a decisive shift away from fossil fuels, involving academia, industry and the third sector.

6. Over the 10 years since its original publication, our strategy for the successful delivery of the WIIP has maintained its four key goals to:

Create a system that identifies and prioritises nationally significant infrastructure schemes across departmental responsibilities, focusing resources on the highest priority investments, which deliver the most benefit in line with sustainable development

7. Faced with a decade of austerity, further developments have arisen that have meant that a robust system to identify our highest priorities remains at the forefront of our planning. With the shadow of Brexit and the uncertainties created by the global pandemic we have redoubled our efforts to ensure our infrastructure ambitions are delivered.

8. We have adopted a consistent method of appraisal and prioritisation of schemes for capital allocations, which is outcome-driven and evidence-based, with clear prioritisation that promotes the best use of available resources.

9. We have continued to review the available evidence of the impact, effectiveness and value for money of capital programmes across government and ensured they demonstrate a strong alignment to our Programme for Government commitments. Where we have identified divergence from these commitments we have carefully reviewed the need for them, reallocating resource to those areas that will better support our goals.

10. The 2017-18 Budget saw us allocate our capital funding on a programme basis over a four-year period (2017 18 to 2020-21), allowing detailed planning and surety of funding to deliver our key objectives.

11. The declaration of a climate emergency in 2019 has shaped our future funding allocations. Our plans and commitments have been required to give particular focus on the role that capital investment plays in addressing the Climate and Nature Emergency.

12. For example the 2020-21 draft Budget, £140m of capital funding was provided in an investment package designed to help combat the climate emergency. In setting our budgets for 2021-22, the majority of that funding was maintained in departmental baselines, as well as an allocation of nearly £80m in additional capital funding to directly support activities that promote decarbonisation and further enhance our rich biodiversity, alongside the actions we are taking as part of our wider investments.

Increase the resources invested in prioritised strategic infrastructure over the next 10 years beyond expected budgeted levels

Welsh Government Borrowing Powers

13. Under the Wales Act 2017 the Welsh Government's overall capital borrowing limit increased from £500m to £1bn, starting in the financial year 2018-19, and the amount we can borrow each year increased from £125m to £150m from April 2019.

14. Borrowing has proved critical to boost Welsh infrastructure investment but it has to be prudent, affordable and sustainable. Our approach to capital has remained unchanged, to use general capital first before more expensive capital funding streams, such as borrowing which has revenue implications.

15. However, we face the continual challenge in recent years of receiving allocations of capital funding late in the financial year from the UK Government. While we have welcomed additional funding the long-term nature of infrastructure planning and investment means that it is simply not possible to deploy large amounts of capital funding shortly before the year end.

16. It is crucial to consider Welsh Government budgetary flexibilities as a package. A relaxation of our borrowing limits, coupled with an increased capacity in our ability to carry forward funding between years would ensure that we are able to maximise our capital ambitions for the benefit of Wales.

17. Our take-up of planned borrowing has been carefully considered during each budget period and has only be used when all available conventional, cheaper sources of capital financing have been exhausted.

Mutual Investment Model

18. The Mutual Investment Model (MIM) was developed by the Welsh Government to finance major capital projects due to a scarcity of capital funding. The Mutual Investment Model will accelerate investment in projects that would not otherwise have been affordable and is making an important contribution to our efforts to kick-start economic recovery.

19. Current schemes will foster over a billion pounds worth of urgently needed investment in public infrastructure in Wales, whilst also delivering stretching community benefits.

20. The Education programme will see an investment of up to £500m of additional investment in new Education facilities and is expected to deliver around 30 schools and colleges over the next seven years.

21. The A465 will see an estimated £400m of project spend in Wales, with £170m within the Heads of the Valleys region generating a project value of £675m for the wider Welsh economy.

22. A wide range of Community Benefits will also be delivered through the scheme, supporting the objectives of the Valleys Task Force. These benefits include contractual targets for training and jobs for local people, and local supply chain opportunities.

23. Maximising youth employment and skills development is key to our priorities for the reconstruction effort. The A465 dualling will provide over 120 apprenticeships, 60 traineeships, over 320 internships and over 1600 national qualifications, leaving a legacy of improved skills.

24. We will retain the MIM alongside our other sources of funding and consideration will be given to deploy the MIM further where appropriate opportunities arise.

City/Growth deals

25. The North Wales Growth Deal offers the opportunity for nearly £1bn of investment across the north Wales region, not just the £120m each of investment from Welsh and UK Government. The challenge for all partners is to exploit the synergies between the programmes to maximise the return on every pound invested for the region.

26. Heads of Terms for the Mid Wales Growth Deal were agreed in December 2020 between Welsh Government, UK Government and the region's two local authorities (Ceredigion and Powys). The signing demonstrates a commitment by both governments and the local authorities to work together to deliver a Growth Deal to support the Mid Wales economy. It also commits both the Welsh and UK Governments to back the Growth Deal with a £55m investment each.

27. Over a 15 year term the Swansea Bay City Deal it is anticipated up to £1.3bn investment will be generated, which currently stands at: City Deal £241m; Public Sector £330m; Private Sector £592m. It aims to create over 9,000 skilled jobs aligned to economic acceleration, energy, life sciences and smart manufacturing across the region.

28. The Cardiff City Deal is a £1.229bn investment over 20 years made up of £734m ring-fenced for delivery of the South East Wales Metro, managed by Welsh Government, and a £495m investment fund (WIF) distributed by the Cardiff Capital Region.

EU Funds

29. To date £614m of EU funds have been committed under the 2014-2020 programmes for infrastructure projects across Wales, driving a total investment of £1,111m.

30. While we have now left the European Union we are still unclear as to the quantum and source of replacement funding. This is covered in more detail in the Strategic financing chapter.

31. EU funds have supported the development and modernisation of infrastructure through major University expansions, such as Aberystwyth University's Innovation and Enterprise Campus and Cardiff University's Centre for AI Robotics and Human Machine Systems, upgrades to our road networks, the railway station network, and the development of the South Wales Metro project.

32. As well as supporting the economic regeneration of town centres, developing Wales' visitor attractions, attracting firms in high value sectors to Wales through the construction of modern business premises and providing major investment in our digital infrastructure through the roll out of superfast broadband.

Reduce the costs of maintaining and delivering infrastructure and maximising the value for money provided by our investments

33. One element underpinning the delivery of the WIIP, is the work of the Welsh Government's Office for Project Delivery (OPD). The OPD works with departments and the wider Welsh public sector to promote and support best practice development and delivery of infrastructure proposals.

34. The Better Business Cases programme (BBC) comprises guidance and templates at project, programme and portfolio levels; complementing this is a package of accredited training.

Together these products serve to upskill public sector officials and reduce the reliance and spend on consultants for business case development purposes. Globally, in excess of 10,000 delegates have so far been trained. Welsh Government has entered into a pan Welsh public sector training contract with an accredited provider to satisfy its training demands in a cost-effective manner.

35. Building on the growth of business case practitioners in the Welsh public sector, Welsh Government established BBC Networks in both north and south Wales. These valued public sector forums provide periodic opportunities to gather business case practitioners with a view to sharing best practice across the public sector, and continuing to develop expertise. In Wales, Network membership comprises some 300 officials from nearly 40 public sector organisations.

36. We have continued to provide greater assurance and control through a risk assessment process applied to all Welsh Government programmes and projects via our Integrated Assurance Hub. The 'hub' ensures there is independent assurance of programmes and projects through a number of different assurance products, such as Infrastructure and Project Authority's Gateway reviews. The assurance process assesses the programme/project at key stages in its lifecycle against a number of factors, including the capacity to deliver on time, within cost and quality and to realise the programme/project's stated benefits.

37. Since 2018, the 'hub' has successfully increased awareness of the 'assurance offer' within Welsh Government and the wider Welsh Public Sector, with assurance reviews numbers rising significantly over that period by over 100%. In addition, the 'hub' now offers a wider range of assurance products, which helps Senior Responsible Owners tailor reviews specific to their programme and project needs.

Procurement

38. In 2012, we published the first Wales Procurement Policy Statement (WPPS) clearly setting out the procurement practices and the specific actions that will be required of every public sector organisation in Wales. The aim of the WPPS was to assist in securing greater levels of good procurement across Wales to drive efficiencies and generate local benefits. Several of the principles within it supported delivery of the then WIIP, such as Community Benefits.

39. In Spring 2015, the WPPS was refreshed to focus primarily on the impact of the new European Directives and measuring adoption.

40. We published the revised WPPS in March 2021, highlighting the vision of Welsh public sector procurement as a powerful lever with ability to affect sustained change to achieve social, economic, environmental and cultural outcomes for the well-being of Wales. This WPPS will help to define our progress against the well-being goals of the Well-being of Future Generations (Wales) Act.

41. The Welsh Government is supporting the public sector action to drive decarbonisation through procurement expenditure analysis tools and guidance for all public bodies to help them prioritise actions to address carbon emissions. These tools include the Decarbonisation Dashboard, made available in 2020, to help those organisations who needed it to identify their highest emissions categories of expenditure and establish an organisational emissions baseline. Following the Decarbonisation Dashboard, we published a new forward-looking Wales Procurement Policy Note in November 2021 which provides guidance on practical strategies to help organisations plan for and build in ways to drive decarbonisation actions.

42. We introduced the use of Project Bank Accounts (PBAs) on all construction and infrastructure contracts valued at £2m or more and led by example, requiring the use of PBAs on contracts which are delivered or part funded by Welsh Government Departments.

43. The Commercial Delivery team worked closely with stakeholders, to reduce its number of frameworks which, while let nationally, provided a focus on delivering regional and local well-being through either direct contracting opportunities or supply chain intervention.

44. The Welsh Government has led the public sector in producing a Digital Action Plan for procurement, which forms part of the Welsh Public Sector Digital Strategy.

45. Significant work has been undertaken in preparation for leaving the EU. The Welsh Government has agreed for provision to be made within Westminster legislation for procurement reform. We are working closely with the UK's Procurement Reform Bill team to develop the Bill and ensure it fully reflects the Welsh Ministers' policy priorities for public procurement. The intention is that, within the Bill, Welsh public bodies will be required to give due regard to the WPPS.

46. The COVID-19 crisis in March 2020 resulted in the procurement profession across the Welsh public sector increasing its collaborative efforts and refocusing resources in relation to the delivery of critical equipment and services such as Personal Protective Equipment and Contact Tracing.

Establish and maintain a new monitoring system of major strategic infrastructure expenditure in Wales, improving control and public visibility

Pipeline

47. The publication of the WIIP in 2012 saw us first capture details of Welsh Government led nationally-significant projects of more than £15m. This first project pipeline listed 73 Welsh Government schemes with a total value of around £4bn.

48. Since then we have provided regular updates to give an ongoing picture of planned infrastructure investment in Wales. This approach has helped support private and public sector investment decision making; facilitate strategic planning and promote collaboration.

49. We have worked with public and private partners to improve the pipeline across each iteration. Subsequent publications have been extended to include details of infrastructure investment across Welsh Government, local authorities (schemes over £2m) and private investment in the energy, rail and water sectors. This culminated in the Spring 2021 update including over 460 projects and programmes with a potential investment of over £29bn and an estimated of £12.5bn Welsh Government support.

50. Looking forward we will continue to work with our stakeholders and to ensure that the pipeline remains a pertinent tool for planning and captures our ambitious plans for infrastructure across Wales.

Achievements

51. The WIIP set out our infrastructure priorities for the decade ahead and while many of these ambitions have remained unchanged some have required a shift in focus or been superseded as the economic and political landscape has changed.

52. The WIIP laid out our investment and delivery plans covering our Economic and social infrastructure ambitions. The priorities originally identified in the WIIP being to:

- Improve transport networks.
- Improve telecommunications networks.
- Support the development of the energy industry in Wales.
- Invest in housing and regeneration.
- Deliver more efficient and economical public services.
- Improve the quality of the educational estate.
- Develop our enterprise zones.

Improving transport links, particularly East-West transport links in both North and South Wales

Road

53. Significant work has been progressed in improving East-West links in South Wales with the progress of the A465 projects, most notably Section 2 (Brynmawr to Tredegar) due to complete in 2021 and Section 5&6 (Dowlais Top to Hirwaun) which will begin construction in 2021 with a 5 year completion timeframe. We also have additional plans to make improvements along the A40.

54. In North Wales, construction has commenced on A55 Abergwyngregyn to Tai'r Meibion, due for completion in 2022. Progress on the 3rd Menai Crossing has also been made but there are no dates for construction at this time.

55. One of the most significant decisions taken over this period has been not to proceed with the M4 relief road. The South East Wales Transport Commission (SEWTC) was established immediately after this decision and their final report was published in November 2020.

Rail

56. Other areas not fully devolved but where the Welsh Government has an essential interest include the improvement of rail services, notably electrification of the main line to Swansea and of the Valley Lines running into our coastal cities.

57. Transport for Wales (TfW) was created in 2016 to operate services under the Wales and Border franchise as well as owning and maintaining the infrastructure of the Valley lines radiating North of Cardiff.

58. Rail service improvements have been made throughout Wales. This includes frequency enhancements and the ordering of a new fleet of rolling stock that will operate on the Cambrian, Marches, NW Coast and Cheltenham lines. New stations have been created at Bow St, Pye Corner, Ebbw Vale Town and Fishguard and Goodwick and a delivery plan for a new station at St Clears has been agreed.

Aviation

59. Cardiff International Airport (CIAL) is a vital gateway to Wales for business, tourists and general travellers alike. It is vital for Wales's economic development that we have strong international connectivity to and from Wales as well as a welcoming open door for tourism.

60. In 2013, the Welsh Government purchased Cardiff Airport as a strategic addition to Wales' transport infrastructure and to secure its future after an extended period of commercial decline and develop high-quality services and additional routes for passengers.

61. Prior to the COVID-19 pandemic, Cardiff Airport saw continued growth in passenger numbers. According to Civil Aviation Authority statistics, Cardiff Airport terminal passenger numbers increased from 1.013m in 2012 to 1.655m in 2019. In 2020, numbers fell to 0.219m due to the pandemic.

Improving telecommunications networks and assuring all parts of Wales have access to adequate broadband facilities for their economic needs

62. Commencing delivery in January 2013 the Superfast Cymru project provided 733,000 premises across Wales with access to superfast broadband. This took the percentage of premises from a base of 44% of homes and business premises to 95% at the end of the project in 2018.

63. The successor project to Superfast Cymru, which is currently ongoing, will provide access to gigabit capable broadband to a further 39,000 premises by 2023.

Supporting the development of the energy industry in Wales

64. In 2019, the equivalent of 51% of Wales' electricity use came from renewables. The figure for 2012 was 18%. We have reached 83% of the locally owned target and have almost 200 community owned renewable energy projects. Locally owned generation provides a strong opportunity to retain money in the local economy, contributing to prosperity.

65. The Welsh Government is strongly committed to unlocking the energy potential from Welsh waters and we continue to bring together expertise across government, industry and academia to focus on the delivery of marine energy.

66. The first Welsh National Marine Plan was adopted in 2019. The Marine Plan allows for energy generation, and spatial guidance is being developed to help locate generation in the least environmentally sensitive areas. Additionally we have commissioned the Offshore Renewable Energy Catapult to carry out an assessment on grid and ports infrastructure requirements to support this industry.

67. We continue to fund Marine Energy Wales to enable them to bring together technology developers, the supply chain, academia and the public sector to establish Wales as a global leader in sustainable marine energy including FLOW generation, making a significant contribution to a low carbon economy.

68. The Welsh Government Energy Service was launched in October 2018, bringing together the support services previously provided as Green Growth Wales and the Local Energy Service. The service provides a single point of contact for public sector organisations and others seeking to develop energy efficiency or renewable energy schemes. It offers technical, financial and commercial support to public bodies and communities. The Wales Funding Programme and the Welsh Energy Loan Fund together provide loans, including low or interest-free loans, to support installations.

Investing in housing, specifically supporting the housing market through initiatives such as the proposed mortgage guarantee scheme, the Housing Bond, increasing the supply of social housing and improving existing housing stock, including improving energy efficiency through arbed and NEST

69. Since 2012, we have seen record levels of funding in housing and our warm homes programmes, with around £3.5bn being invested across this period.

70. Help to Buy – Wales opened in January 2014. The scheme has made an important contribution to support people who would like to own a new build home but require assistance to do so. It has additionally been a key source of support for the housing industry, related supply chains and all involved in the buying and selling of homes. Since the start of the scheme to 31 March 2021 the scheme received a budget of £535m and supported the purchase of almost 12,000 homes for individuals and families in Wales.

71. The Housing Bond also known as Housing Finance Grant (HFG) has been successful in bringing forward the building of circa 2,500 new homes that would otherwise have had to wait years for traditional funding to be available. This revenue grant was developed as alternative way of funding affordable housing i.e. social and intermediate rent, without recourse to capital funding.

72. HFG provides revenue funding to assist with the repayment of a proportion of the financing costs (interest and capital). This grant was made available to RSLs, with the aim of supporting the build of a mix of affordable housing.

73. In 2013-14 the Welsh Government committed to £4m per annum of revenue funding for 30 years to fund the building of additional 1,000 affordable homes across Wales.

74. The second phase started in 2017-18 and will make available a yearly revenue funding stream of £9m. As a result of this second tranche of revenue funding, the HFG programme doubled in size, with the aim of delivering up to an additional 1,500 new affordable homes.

75. The WHQS was introduced by Welsh Government in 2002, to raise the physical standard and condition of social housing in Wales. WHQS applies to Registered Social Landlords (RSLs) and local authorities with social rented housing stock. All 230,000 existing homes encompassed within the scheme have seen investment and this has raised the majority of properties to meeting EPC D (SAP 65).

76. The WHQS programme has invested £1.8bn to date in social housing. Investment in £108m per annum will continue to support social landlords to achieve and maintain the current standard to ensure decent homes which have affordable warmth.

77. Welsh Government fuel poverty estimates published in 2018 suggests fuel poverty has more than halved in Wales between 2008 and 2018.

Delivering more efficient and economical public services

78. The desire to deliver services more economically and efficiently has been and still remains, a key objective for the vast majority of NHS Capital Investments. The period since 2012 has seen significant on-going investment in the NHS Infrastructure covering buildings, digital infrastructure, equipment and vehicles.

79. The delivery of the state of the art, £360m Grange University Hospital in 2020 with its modern, off site construction demonstrates at a large scale what can be done to deliver new clinical models.

80. We have invested a total of over £640m in general capital funding to local authorities over the past 10 years with the annual general capital grant rising from c£54m in 2011-12 to nearly £90m in 2021-22.

Improving the quality of the educational estate, particularly schools

81. Band A (2014-19) of our 21st Century Schools and Colleges Programme saw £1.6bn invested. Through a co-construct approach, the original target for delivery of 150 projects was exceeded with 175 new and refurbished schools and colleges projects across all regions of Wales. This investment delivered improved learning environments over 100,000 pupils.

82. In 2019 Band B began with a further £2.3bn investment and a proposed 200 new or refurbishment projects. At present 57 projects have been approved under this investment; of these 9 have been completed and a further 27 are under construction. There are also 43 projects currently working their way through the business case process.

Developing our Enterprise Zones

83. We have established eight Enterprise Zones across Wales. These are designated where the Welsh Government has created the best possible conditions for business to thrive.

84. To date 967 businesses located within the zones have received financial support from Welsh Government, attracting more than £360m public and private sector investment. This has helped to create or safeguard a total of 12,257 jobs across the Zones since they were established in 2012.