Awdurdod Trafnidiaeth Prifddinas Ranbarth Caerdydd | Cardiff Capital Region Transport Authority

26 NOVEMBER 2020

REGIONAL TRANSPORT AUTHORITY (RTA) 'A NEW AGENDA FOR A NEW FUTURE'

REPORT OF CARDIFF CAPITAL REGION DIRECTOR

AGENDA ITEM 6

Reason for Report

1. To set out a strategic proposal to support the RTA in transitioning to a place where it widens its remit past co-ordinating transport planning and investment in partnership with the Welsh Government for City Deal-specific programmes, to enable it to play a role in co-ordinating, aligning and leveraging transport planning and investment for all regional strategic programmes, including:

    - being a regional point of co-ordination for complementary Welsh Government (WG) / CCR programmes;

    - an integrated and effective Regional Bus Network proposal as identified at appendix 1;

    - develop its first strategic publication setting out the Regional Rail Priorities for CCR – which, in anticipation of the Western Gateway Sub-National Transport Plan work, 'levelling-up' asks and offers and, wider opportunities that will arise via the COVID-recovery response. The first part of this work is set out in the proposed draft document 'Strategic Rail Vision & Priorities for Cardiff Capital Region' as attached at appendix 2. (Please note this paper is still in draft and is currently going through being scrutinised by partners);

    - initial work to scope, at a policy test case level, research and insight into fiscal levers, such as NNDR and Tax Increment Financing which could be future tools in regional transport investment; and,

    - begin to scope and assess future functions and required levers in response to any future development of a Corporate Joint Committee for the CJC, which will embody a Transport Sub-committee responsible

for Strategic Transport Planning and the creation of a Regional Transport Plan.

2. To ask Members to support a request to Regional Cabinet, to seek authority from the member Councils, to amend the Terms of Reference of the RTA, to include the above in order to a) build upon the programme of work underway at the RTA and b) begin the transition to strategic transport co-ordination as set out in this report.

3. To ask Members to support a request to Regional Cabinet to agree to establish a Regional Unit under the auspices of the CCR Office to deliver the regional bus network that consolidates skills and resources in a combined team, including potential additional resources to accommodate increasing workload, and to resource a bus manager to provide a full time role to focus on delivering regional / local bus functions (as identified in the paper at appendix 1).

Background

4. Joint working arrangements were developed following the establishment of the former Regional Transport Consortia in 2008, however, following a change in Welsh Government transport planning policy, these were disbanded in 2014. This period demonstrated the value of joint working, in particular the ability to pool expertise. It should be noted however, that most officers undertook regional duties in addition to their day-to-day workload.

5. The Cardiff Capital Region (CCR) RTA is currently responsible for:

- pooled local transport resources;
- regional planning for the local transport network – mainly as a function of City Deal;
- working with Transport for Wales to ensure objectives for transport investment are aligned;
- exploring the creation of a single integrated ticketing platform for public transport across the Cardiff Capital Region;
- working in partnership with Welsh Government to define the priorities of the South East Wales Metro concept and to support its delivery; and
- working in partnership with the Welsh Government to promote the development of integrated aviation routes from Cardiff Airport and St Athan Enterprise Zone, to deliver economic benefit.

6. Whilst, the remit of the RTA only currently pertains to funding provided by the City Deal, in practice, the RTA works outside of its remit by voluntary agreement, where it provides a platform to:

- deliver regional strategic transport projects funded by Welsh Government Local Transport Fund (LTF);

- prepare regional Ultra Low Emission Vehicles (ULEV) Strategies to deliver the climate change agenda in relation to transport transition;

- deliver the ULEV Transformation fund programme;

- manage the Bus Services Support Grant (BSSG) and more recently the BES1 (Bus Emergency Support) and BES2 funding to support local and regional bus services following the COVID-19 pandemic and the more recent need to financially support the bus network;

- engage consultants to prepare a regional rail programme that contributes towards the Levelling Up Prospectus for the Region which can be submitted to UK Government as a tool for investment in the CCR; and,

- contribute into wider developmental initiatives such as the Western Gateway

7. To enable the RTA to function efficiently and effectively, there is a need to refine its wider remit to reflect a) the agenda it is already progressing and b) the future agenda required through transition to a CJC. In this way, this allows a more seamless transition and begins to position to RTA to have a say on the big strategic infrastructure issues of the day – levelling up, under-funding of transport in the region, rail priorities and sustainable active travel.

8. It is therefore proposed to add the following functions into the existing RTA Terms of Reference. The RTA remit includes:

    - being a regional point of co-ordination for complementary Welsh Government (WG) / CCR programmes;

    - managing an integrated and effective Regional Bus Network as identified at appendix 1;

    - developing its first strategic publication setting out the Regional Rail Priorities for CCR – which, in anticipation of the Western Gateway Sub-National Transport Plan work, 'levelling-up' asks and offers and, wider opportunities that will arise via the COVID-recovery response. The first part of this work swill include the detail that is set out in the proposed draft document 'Strategic Rail Vision & Priorities for Cardiff Capital Region' as attached at appendix 2. (Please note this paper is still in draft and is currently being scrutinised by partners);

    - initial work to scope, at a policy test case level, research and insight into fiscal levers, such as NNDR and Tax Increment Financing which could be future tools in regional transport investment; and,

    - scoping and assessing future functions and required levers in response to any future development of a Corporate Joint Committee for the CJC, which will embody a Transport Sub-committee responsible for Strategic Transport Planning and the creation of a Regional Transport Plan.

Local Transport Fund (LTF)

9. Whilst Regional Transport Consortia were technically disbanded in 2014, the South East Wales Region has continued to work collaboratively to provide a platform to deliver the Metro Plus Programme, the Core Valley Lines (CVL) enhancements and the wider regional programme. Regional bids are submitted to WG annually to seek funding to deliver existing programmes and to fund feasibility studies through WelTAG and GRIP for future strategic transport developments. Funding awarded to the Region in 2020/21 amounts to circa £5m.

ULEV Transformation Fund

10. WG ULEV Transformation Fund is a new fund provided by WG in 2020/21 to enable a co-investment mechanism for meeting a proportion of the costs of ULEV Transformation. The initial fund is a one year investment fund at this stage and all works would need to be completed by 31st March 2021. However, it is anticipated that this fund will be made available beyond this one year to assist the Welsh Government transform the network to ULEV and help them reach their targets of zero emissions from buses and taxis by 2028.

11. The result of the bid submission meant that WG awarded Merthyr Tydfil County Borough Council up to £1.296m to deliver ULEV Transformation schemes and the allocation received by the Cardiff Capital Region was the highest award in Wales from this funding budget. The large element within the bid was around incentivising taxi drivers,

12. The Grant award specifically states that the purpose of the funding is for the following:

Taxi ULEV Infrastructure	Rapid chargers for taxis to include grid reinforcement costs, project management, research, strategy and planning of the installation, health and safety and auditing	£1,040,000
Bus ULEV Infrastructure	Bus ULEV Infrastructure – partial award is based on 1 bus chargepoint at Merthyr Tydfil Bus station and passive provision (ducting or cabling) for additional bus charging.	£100k
Transport Hub ULEV Infrastructure WelTAG 2/3	WelTAG 2/3 for a programme to cover all 27 transport hubs that have been identified that could facilitate a range of ULEV infrastructure for various modes of transport.	£100k
EV Roadshow with Drive and Ride Opportunities	10 Trade engagement event including ride and drives and newsletters	£56k

13. A further submission is currently being prepared to purchase up to 50 Wheel Chair Accessible (WAV) taxis to provide a ‘try before you buy’ scheme (circa £2-3m investment) where taxi drivers will have the opportunity to use the

vehicles for 30 days, free of charge, to encourage them to see the benefits of the zero emission vehicles with the ultimate goal of them investing in them.

Regional Bus Network

14. The current legal and funding framework is extremely complex, with an inherent risk that competing requirements make it difficult to achieve integration of bus services. This situation was recognised by the WG, which had proposed the commencement of the Wales Bus Bill to provide Local Authorities with a greater range of opportunities to determine the most appropriate means of providing services in their area. Due to the COVID-19 pandemic, this Bill has been withdrawn and the WG is considering whether a new approach is appropriate to reflect changing travel patterns, including new legislation in the next Senedd term and a greater role for Transport for Wales.

15. Irrespective of these potential developments, there is an ongoing requirement to ensure local bus services are provided against a backdrop of reducing patronage due to the COVID-19 pandemic. This has presented an enormous challenge to the viability of the sector as service levels were initially reduced by between 50 and 75%, with seating capacities reduced by half on the remaining vehicles to allow for social distancing.

16. In response, the WG has provided support in the form of a Bus Emergency Scheme (BES). This has provided operators with the same level of reimbursement and revenue support as in the previous financial year, with additional “ramp up” funding to increase the number of journeys and available capacity.

17. With the significant drop in the number of passengers travelling, it is unlikely that the financial situation will improve quickly, fuelling the Welsh Government’s ambition to change the bus industry going forward, and introduce a more centralised approach to bus funding and administration.

18. Local Authorities retain statutory responsibility for the delivery of the majority of public sector bus functions. There is a need to take a view on how far authorities wish to go in transferring responsibilities and powers, but with officers experiencing a significant increase in workloads that is unsustainable under current resources and working arrangements, a new way of working is needed.

19. Appendix 2 outlines the key issues faced by member authorities, with the proposed establishment of a dedicated regional bus team to consolidate resources and expertise to support delivery of bus related activities.

Levelling Up Prospectus

20. “A Metro for Wales Capital City Region – Connecting, Cardiff, Newport and the Valleys” was published with the Cardiff Business Partnership and the Institute of Welsh Affairs in 2011. Aside from making the case for better regional connectivity, the report also highlighted the importance of links between South Wales, Swansea Bay, Bristol and London. Since then, the Metro was formally announced in 2015, which includes the transformation of

the Core Valley Lines (CVL) through faster and more frequent electrified services, and will be delivered in 2023/4; the new depot being built at Taffs Well is an early sign of progress.

21. However, the challenges now include (1) dealing with the enormity or COVID-19, and (2) for the region to show equal ambition and intent to develop plans for the Metro for the period beyond 2023/4 and into the 2030s. Therefore, building on earlier work, a paper 'Strategic Rail Provision & Priorities for the Cardiff Capital Region' attached at Appendix 3, offers a vision for the CCR in respect of rail.

22. Setting out the CCR Rail vision now is significantly important given the fact that the UK Government is now exploring the opportunity to "level up" rail investment across the UK. The announcement of 'levelling up' by UK Government is welcomed, as it is noted that the ultimate success of the Cardiff City Deal and the key role of Metro within it, acknowledges the relationship between economic development and transport connectivity. It is also agreed that the WG's view that genuine 'Levelling up' cannot simply mean a sprinkling of new, ad hoc rail projects decided in Whitehall, but it has to be part of a strategic approach to promoting growth in all parts of the UK. Neither can it just be about equality of access – merely the ability to 'bid in' to new funding sources - it must be about outcomes and a genuine attempt to narrow the real world gap in terms of rail infrastructure investment between Wales and the rest of the UK. This requires a degree of positive discrimination to counter the inbuilt advantages of areas like the Southeast of England. 'Levelling up' has to be something which meaningfully involves devolved governments in the design and governance of its approach. This is even more important given the scale and potential economic impact of rail schemes being developed elsewhere in the UK (especially HS2 which has the potential to negatively impact the Welsh economy without further transport interventions).

23. In developing its position on strategic rail priorities, CCR needs to reflect both broader WG policy and specific transport proposals as set out in WG policy documents and supporting statements. More specifically, WG has also been developing its vision and priorities for rail through a number of documents and statements; these complement similar statements from the South East Wales Transport Commission, the regions local authorities and the Cardiff Capital Region.

24. To succinctly bring together all the emerging strategic priorities for rail enhancements across Wales, WG produced its Rail Enhancement Priorities. In the CCR this re-stated the need for a major upgrade to the SWML, measures on the Ebbw Valley, Marches and Maesteg Lines and schemes like NW Corridor/Cardiff Crossrail. Despite the limitations of the devolution settlement in respect of rail powers and funding, WG has nonetheless, via TfW, progressed the next substantive phase of the South Wales Metro. This will deliver significant benefits as a result of the current contracted £740m Core Valley Line (CVL) transformation and provides the foundation for the proposals set out at appendix 2.

25. In developing a policy foundation for further rail scheme development, the CCR needs to be mindful of some of the broader issues that need to be

addressed, and which have been previously set out and/or documented in earlier studies and reports. These include, but are not limited:

- road congestion, especially on the A470, M4 and both urban Newport and Cardiff;
- poor east-west public transport connectivity, especially cross valley;
- poor bus/rail integration;
- significant population growth in Cardiff;
- significant car-based development across the region resulting from poor transport/land use choices;
- air quality and health issues resulting from car/vehicle pollution as well as the broader societal costs of both pollution and road traffic accidents;
- limited Active Travel infrastructure.

26. The "Climate Emergency" and the cancellation of the M4 Relief Road, infers a need to develop more public transport capacity in South East Wales. With COVID-19 and a potential change to working patterns, a more holistic review of travel demand will be required to inform this programme. TfW's Transport Modelling capability, the emerging Wales Transport Strategy and Welsh Government Transport Appraisal Guidelines (WelTAG) will provide the framework for all scheme and business case development.

27. It is proposed that the schemes identified within the paper – 'Strategic Rail Vision & Priorities for Cardiff Capital Region' at appendix 2, will feed into the CCR 'Levelling Up' Prospectus currently being prepared to be submitted to UK Government for consideration.

Fiscal Levers

28. There are many UK based examples of fiscal powers being used as a contributor to the funding of transport schemes and infrastructure development. The City Deal has potential to establish a policy position on this, with some research work around NNDR pooling; looking to examples and illustrations in other parts of the UK; and, exploring the uses of mechanisms such as Tax Incremental Financing. It is known, that prospective schemes such as Cardiff Parkway, have stated an intention to seek to explore such models. Whilst this is not about any particular scheme or proposal, it would be of help to establish research, knowledge and application of financial levers and incentives and their application to transport funding, in order to understand future potential. The RTA must have a key role in this.

Local Member consultation (where appropriate)

29. Not appropriate.

Reason for Recommendations

30. It is recommended that:

    a) this will enable the CCRTA to a) build upon the programme of work underway at the RTA and b) begin the transition to strategic transport co-ordination as set out in this report;

    b) this will enable the CCRTA to set up the establishment to deliver the bus network on a regional footing, with all of the benefits of consolidating the resources and skills that regional delivery brings. To enable a bus manager to lead the transformation and deliver the function;

    c) this will set the CCR's rail vision for the future.

Financial Implications

31. Any revised Terms of Reference in respect of the RTA, as well as working with partners to deliver a Bus Manager function will have Financial Implications unless funded by external grant. The Accountable Body has not had sight of any Grant Terms and Conditions. Prior to any Regional Cabinet approval, a full appraisal of any revenue and capital costs arising from RTA's recommendations to Regional Cabinet will need to be determined.

Legal Implications

32. It is noted that this report recommends that CCRTA support the Regional Cabinet to seek authority from the member Councils, to amend the Terms of Reference of the RTA. As this is a matter for member Council's to determine, there are no direct legal implications for this report.

Well-being of Future Generations (Wales) Act 2015 / Welsh Language Measure 2011 & the Equality Act 2010

33. In agreeing to these recommendations consideration must be given, amongst other matters, to:

    a) the Welsh Language (Wales) Measure 2011 and the Welsh Language Standards;

    b) public sector duties under the Equalities Act 2010 (including specific Welsh public sector duties). Pursuant to these legal duties Councils must in making decisions have due regard to the need to (1) eliminate unlawful discrimination, (2) advance equality of opportunity and (3) foster good relations on the basis of protected characteristics. Protected characteristics are: a. age; b. gender reassignment; c. sex; d. race – including ethnic or national origin, colour or nationality; e. disability; f. pregnancy and maternity; g. marriage and civil partnership; h. sexual orientation; I. religion or belief – including lack of belief, and;

    c) the Well-being of Future Generations (Wales) Act 2015. The Well-being of Future Generations (Wales) Act 2015 ('the Act') is about improving the

social, economic, environmental and cultural well-being of Wales. The Act places a 'well-being duty' on public bodies aimed at achieving 7 national well-being goals for Wales - a Wales that is prosperous, resilient, healthier, more equal, has cohesive communities, a vibrant culture and thriving Welsh language and is globally responsible. In discharging their respective duties under the Act, each public body listed in the Act (which includes the Councils comprising the CCRCD) must set and published wellbeing objectives. These objectives will show how each public body will work to achieve the vision for Wales set out in the national wellbeing goals. When exercising its functions, the CCRTA should consider how the proposed decision will contribute towards meeting the wellbeing objectives set by each Council and in so doing achieve the national wellbeing goals. The wellbeing duty also requires the Councils to act in accordance with a 'sustainable development principle'. This principle requires the Councils to act in a way which seeks to ensure that the needs of the present are met without compromising the ability of future generations to meet their own needs.

34. Put simply, this means that CCRTA must take account of the impact of their decisions on people living their lives in Wales in the future. In doing so, CCRTA must:

- look to the long term;
- focus on prevention by understanding the root causes of problems;
- deliver an integrated approach to achieving the 7 national well-being goals;
- work in collaboration with others to find shared sustainable solutions;
- involve people from all sections of the community in the decisions which affect them.

35. CCRTA must be satisfied that the proposed decision accords with the principles above. To assist CCRTA to consider the duties under the Act in respect of the decision sought, an assessment has been undertaken, which is attached at Appendix 3.

Recommendations

36. It is recommended that the CCRTA:

a) supports a request to Regional Cabinet, to seek authority from the member Councils, to amend the Terms of Reference of the RTA, to include widening its remit to enable it to play a role in co-ordinating, aligning and leveraging transport planning and investment for all regional strategic programmes as identified at Appendix 1, including:

- being a regional point of co-ordination for complementary Welsh Government (WG)/ CCR programmes;

- an integrated and effective Regional Bus Network proposal as identified at appendix 2;
- develop its first strategic publication setting out the Regional Rail priorities for CCR – which, in anticipation of the Western Gateway

Sub-National Transport Plan work, 'levelling-up' asks and offers and, wider opportunities that will arise via the COVID-recovery response. The first part of this work is set out in the proposed draft document 'Strategic Rail Vision & Priorities for Cardiff Capital Region' as attached at appendix 3;

- initial work to scope, at a policy test case level, research and insight into fiscal levers, such as NNDR and Tax Increment Financing which could be future tools in regional transport investment; and,

- begin to scope and assess future functions and required levers in response to any future development of a Corporate Joint Committee for the CJC, which will embody a Transport Sub-committee responsible for Strategic Transport Planning and the creation of a Regional Transport Plan;

b) to support a request to Regional Cabinet to agree to establish a Regional Unit under the auspices of the CCR Office to deliver the regional bus network that consolidates skills and resources in a combined team, including potential additional resources to accommodate increasing workload, and to resource a bus manager to provide a full time role to focus on delivering regional / local bus functions (as identified in the paper at appendix 2);

c) to support a request to Regional Cabinet to adopt a Strategic Rail Provision & Priorities for the Cardiff Capital Region for the CCR to set the vision for the CCR in respect of future rail provision.

Kellie Beirne
Director, Cardiff Capital Region
26 November 2020

Appendices

Appendix 1 Regional Bus Network Proposal
Appendix 2 Strategic Rail Provision & Priorities for the Cardiff Capital Region
Appendix 3 Well–being of Future Generations Assessment

Appendix 1: Proposal to Create a Regional Bus Team

1. Scope of paper

1.1. This paper comprises the following sections:

- Summary of current position, including historic decisions that have resulted in current arrangements
- The Welsh Government's drive toward securing control through a more centralised approach
- SWOT analysis
- Key issues experienced by member Authorities / CCRTA, which constrain the ability to meet future challenges
- Opportunities and risks to address current and future challenges
- Proposal to establish a Regional Unit that consolidates skills and resources in a combined team, including potential additional resources to accommodate increasing workload
- Fit with wider stakeholders
- Next steps

2. Current Position

2.1. Joint working arrangements were developed following the establishment of the former Regional Transport Consortia in 2008; however, following a change in Welsh Government transport planning policy, these were disbanded in 2014. This period demonstrated the value of joint working, in particular the ability to pool expertise. It should be noted however, that most officers undertook regional duties in addition to their day-to-day workload. In respect of bus, this situation has continued, with the exception of 1 full-time Bus Funding Project Support & Administration Officer employed by Monmouthshire County Council. This post is entirely funded, but only on a year by year basis, through the Bus Services Support Grant. Recently with workloads increasing, a temporary support assistant has also been recruited using funding from the Bus Emergency Scheme.

2.2. Regional arrangements were maintained for the administration of Bus Services Support Grant funding, which amounts to £11,578,980.62 in 2020/21. The role is currently undertaken by Monmouthshire, as lead Authority on behalf of the CCRTA; however, Mandatory Concessionary Fare administration and the procurement of socially necessary bus services have continued to be undertaken on an Authority-by-Authority basis.

2.3. This mixed arrangement results in a degree of duplication, particularly in respect of concessionary fares reimbursement, where some operators have to disaggregate claims to a number of authorities, for example Stagecoach submit claims to 9 of the 10 CCRTA authorities.

2.4. The dispersal of functions makes it difficult to achieve economies of scale across the region, with some authorities also having to combine bus related functions with other roles. Officers have previously considered opportunities to collaborate, with officers from the Vale of Glamorgan facilitating a series of workshops to

identify common functions that could be undertaken on a regional footing. This work highlighted opportunities for greater coordination of bus functions, including strategy development, preparation of bids, administration of funding and procurement of socially necessary bus services.

2.5. The workshops highlighted the issue of retention and recruitment. Since 2014, CCRTA authorities have lost 10 Full Time Equivalent bus specialist staff, as well as a greater number of transport planners and school transport officers, with many of those remaining now performing multiple roles. Some authorities have been unable to replace staff who have retired or left to join other organisations, which has increased workloads.

2.6. This situation has been exacerbated following revisions to bus services as a consequence of the COVID-19 pandemic. This includes changes to funding arrangements, with increased payment frequency and complexity of funding to reflect the evolving demands on the sector. Officers are also providing significant technical and operational advice to Welsh Government / TfW who currently lack the required expertise. This is a further draw on diminishing resources.

3. A Local Authority Role Moving Forward?

3.1. The Welsh Government have signalled their intention to expand the remit of TfW to include greater involvement in bus delivery. Funding is in place with Monmouthshire County Council to sustain the Bus Emergency Scheme in the CCR for the remainder of the financial year. Beyond that, and initially up to August 2022, an agreement with terms is being drafted by TfW which seeks to secure a more longer-term arrangement that delivers a shared set of objectives.

3.2. A working group has been established to discuss these proposals; however, there are a number of concerns, which include:

- Relevant legal powers are held by local authorities
- Governance / local influence for elected members
- Status of TfW doesn't allow them to undertake Statutory functions
- Lack of clarity on future funding / decision making process
- Knowledge and experience currently held by Local Authority officers

3.3. WLGA have formed a scrutiny committee comprising elected members to consider proposals. An inception meeting was due to be held with the Deputy Minister on 9th November 2020; however, this has been postponed to enable Welsh Government to develop proposals more fully.

3.4. The agreement is complex as it seeks to put in place an arrangement whereby operators enter into partnership under a Public Service Obligation contract to deliver shared set of objectives. There is a desire for this contract to provide a level of co-ordination and direction, to deliver passenger benefits that would not be possible in a normal competitive environment. In essence operators would cede control in exchange for the receipt of grant funding.

3.5. A more centralised arrangement would involve a transfer of powers and responsibility from Local Government to TfW. Acting as a single co-ordinating body for matters such as network design would mean that investment levels would be decided upon centrally. Taking that process forward, TfW has already commissioned Arup to assess and re-design the bus network in Wales, building on work already undertaken in North Wales. The ambition from the Welsh Government to deliver an integrated transport network for Wales is clear but needs to be tempered, as there has been no commitment to date on funding the future level of investment required.

3.6. For TfW to become the central coordinating body for public transport in Wales present risks. Networks have been designed with a mix of transport planning and commercial influences over many years. The networks have evolved and adapted to patterns of demand that generate the largest passenger numbers, or in the case of subsidised services to meet social need. In recent years, adapting to change and making the most of a reducing funding base has required detailed local knowledge of the geography, supply market and the community.

3.7. In short, funding and local decision making has been at the heart of efficient network planning. The distancing of decisions away from Local Government will be disjointed and introduce diseconomies of scale and therefore extra costs for local authorities to bear.

3.8 Securing control will not be the panacea for the delivery of an integrated public transport network. It requires investment of both capital and revenue. Attention instead should be focused on working with the Local Authorities, using their experience to manage the Bus Emergency Scheme and ensure bus services and operators can emerge from the current COVID-19 pandemic when conditions improve.

3.9. Local Authorities have existing statutory powers and duties in respect of bus service provision, including:

- Creation of Joint Ticketing Schemes
- Creation of Statutory Bus Quality Partnerships
- Procurement of Socially necessary bus services under Section 63 of the Transport Act 2000
- Statutory responsibility for administering the mandatory concessionary travel scheme

3.10. Welsh Government should use these powers and enable Local Authorities to put national policy into practice by funding them to develop realistic network options for the future where economies of scale can be exploited and developed relative to passenger demand informed by intelligence, social/community need, market conditions and local democratic input.

3.11. The Welsh Government is also consulting on proposals to establish four regional Corporate Joint Committees as part of the Local Government and Elections Bill.

These can be established by direction of Welsh Government, or two or more authorities can request permission from Welsh Government to undertake agreed functions on a joint basis.

3.12. Whilst the CJC model may provide an opportunity for greater collaboration to deliver bus functions, their scope is initially limited to transport planning functions, which does not address many of the issues currently faced by authorities. There is scope to transfer additional functions; however, there will be an additional lead-time if approved. The proposed Local Government and Elections Bill, will also repeal the relevant sections of the Transport Act (Wales) 2006, which contains powers to establish Joint Transport Authorities.

4. SWOT analysis – existing situation

4.1. There is a need to work in partnership with the Welsh Government and Transport for Wales but for Local Authorities to retain control over the design, procurement and administration of networks that ensure local community needs are considered, the technical, financial and staffing implications must be examined.

4.2. Officers have undertaken a SWOT analysis of the current arrangements, including key issues and risks. This is summarised in figure 1.

Figure 1- SWOT analysis of current bus delivery functions with CCRTA member authorities

Strengths	**Weaknesses**
Skills and experience of officers within member authorities Dedicated staff (highlighted during COVID-19 response) Local governance and scrutiny of decisions Legal powers for Statutory Quality Bus Partnerships, joint ticketing and administration of concessionary fares Co-signatory on CCR City deal, which includes creation of Regional Transport Authority and commitment to co-design Metro	With exception of funding administration officers, regional work is additional to 'day' job Lack of capacity to focus on regional issues Lack of progressive career structure for many authorities limits ability to recruit and retain staff Lack of cover to mitigate absence Disparate procurement limits opportunities to achieve economies of scale Lack of delegated powers from regional cabinet Variability of resources within member authorities Risk of duplication of effort – both internal for the region and between region / TfW
Opportunities	**Threats**
Use of existing powers to achieve greater consistency of bus services Achieve economies of scale – e.g. regional procurement of bus shelters to obtain lower unit cost Legislative change (Aborted Bus Bill proposed greater range of options for local authority provision of bus services) Corporate Joint Committees – functions could include transport (note period to be confirmed) Efficiency gains (e.g. consolidation of concessionary reimbursement, centralised unit to administer DBS checks) Smooth peaks in work / reduce peak to manageable level! (e.g. coordinated re-tendering of supported bus services at fixed periods) Maintain local accountability Create structured career path to build a centre of excellence / exemplar of good practice Increasing practice of homeworking in response to COVID-19 provides an opportunity to establish a regional team without requirement to physically relocate staff on a permanent basis	Expanding role of TfW could reduce local decision making / governance Legislative change (withdrawal of proposed Bus Bill Wales could result in change of policy direction) Scope of CJCs may not include all transport functions Senedd election in 2021 may result in new policy direction Lack of long term funding agreement – current structure prohibits long term planning Critical reliance on reducing pool of unpaid specialists prepared to take ownership and resolve problems Unable to backfill roles of staff who take on increased regional role

5. Key Issues identified through SWOT analysis

- Increased and critical reliance on small core of specialist officers that have been prepared to “manage” bus funding issues on an unfunded and voluntary basis.
- COVID-19 impact accelerating the need to develop greater collaboration
- Limited opportunity for career progression, also detrimental to succession planning
- Limited opportunities to achieve efficiencies / economies of scale
- Bus Bill / CJC
- Unsustainable workload – prevents authorities undertaking some functions (e.g. full monitoring of bus service contracts)
- Lack of delegated powers from regional cabinet
- Need to maintain local provision / accountability, whilst achieving economies of scale
- Proposals to transfer functions to TfW under an agency agreement could reduce local determination and governance on bus service provision

6. Proposal for a regional team to reflect SWOT analysis

6.1. Following the SWOT analysis, Officers have considered the opportunity to establish a regional bus team to collaborate and deliver bus functions.

Scope

6.2. The primary function of the team is the maintenance of existing grants (BSSG, Bus Hardship and Bus Emergency Scheme funding, with a transition to regional administration of bus related funding (including Mandatory Concessionary Fares and Local Transport Fund). BSSG and Concessionary Fares administration across the CCRTA collectively distribute in excess of £52m per annum, with a further £20.5m being administered in 2020/21 under the Bus Emergency Scheme. Centralisation would provide a global view of activities to streamline processes, such as audit and fraud management. These activities could provide quick wins and a foundation to expand functions over time.

6.3. The proposed publication of the Wales Transport Strategy in early 2021 will necessitate review and development of existing transport strategies. The team could provide a focal point to develop a coordinated regional implementation strategy that could inform funding bids and delivery programmes.

6.4. The role of the team would evolve as the capability and capacity of the team expands, potential functions could include:

- Assessment and procurement of socially necessary services
- Procurement and management of bus related infrastructure
- Management of printed timetable information at bus stops
- Development of common regional standards
- Preparation of funding bids, including peer review/value engineering functions

6.5. Each authority, will determine the scope of works with the principal of local decisions, delivered regionally. This approach will ensure local needs can

continue to be met, whilst achieving economies of scale and consistency for users. Constituent authorities would 'opt in' to the arrangement if they perceive there are benefits.

Governance

6.6. Achieving the principle of local decision-making will require clear governance and accountability processes. The team could be structured 'virtually' within the City Deal Office, given the potential opportunity to consolidate bus related funding bids.

6.7. It is envisaged the team would report to the CCRTA to provide political scrutiny and accountability to residents. This will also ensure regional issues are considered.

Benefits

6.8. The primary benefit of regionalisation of functions is providing additional capacity to meet increasing workloads. This would be achieved through reduction of duplication of some functions. Further opportunities include economies of scale, particularly procurement of contracted services and development / rollout of common infrastructure standards that decrease unit costs and reduce the volume of spares and supplies required.

6.9. Despite these savings, it should be noted that some investment in staff resources will be required to address the historic reductions in staff levels and to backfill those roles officers are currently undertaking on a shared/part-time basis.

6.10. Consolidation will also provide opportunities to develop skills internally and reduce reliance on external consultancy support (with further cost savings). This will also create a career progression path to assist recruitment and retention assisting succession planning. The structure should also utilise the most appropriately skilled officers.

6.11. Increased consistency will assist delivery of the integration agenda.

6.12. Increased use of home working could reduce accommodation costs depending on the model of working.

Risks

6.13. The outcomes of consultation on the Wales Transport Strategy and CJC cannot be determined at present; however, the statutory duties that reside with member authorities will remain.

6.14. The greatest risk is uncertainty of the future funding settlement for Regions / Local Government, particularly the impact of the COVID-19 on future requirements; however, given the recent decision by Welsh Government take management of rail services in house, it is predicted the public sector will continue to play a key role in post COVID-19 recovery.

6.15. There are significant political risks due to the proximity to the 2021 Senedd elections, which could result in changes to current policy and / or legislation post election.

6.16. Need to backfill roles for officers working full time on regional functions.

6.17. There could be staff issues in respect of TUPE, location and accommodation; however, the increased use of home working during the COVID-19 response may reduce the need to be physically located full time in a single location. It is also envisaged staff would remain employed with their 'home' authority and be seconded to the unit. A lead admin authority could recruit future employees for consistency of terms and conditions.

7. Fit with wider stakeholders

7.1. The legislative and funding environment for delivery of transport functions is extremely complex, with a number of organisations responsible for various elements. Whilst this proposal could simply use Local Authority structures, there will be requirements to work with stakeholders, particularly where they are better placed to deliver functions (for example pan-Wales initiatives. Tables 1 and 2 illustrates the potential for a regional team to dovetail with functions that are retained by Authorities or Welsh Government/TfW.

Table 1 – potential organisation of key functions

National (WG and or TfW)	Regional Bus Team	Local (retained functions)
Develop Wales Transport Strategy	Regional Bus implementation Strategy	
Develop National Bus infrastructure standards	Regional delivery of national standards - foundation of Statutory Quality Partnership schemes under LA powers in Transport Act 2000	
	Implement Regional infrastructure investment plan from regional strategy (prepare schemes, funding bids and manage delivery)	
Development of National Bus Service Quality Standards	Delivery through statutory / voluntary quality partnerships and BSSG/BES payments	
	Procurement of contracted services under S63 powers	identification / funding of local supported bus services (procured by regional team)
National Ticketing Infrastructure, including concessionary card back office and commercial apportionment capability	Concessionary Fares Admin and reimbursement - note desire to move to automatic reimbursement from HOPS	
	Delivery of regional ticketing through LA legislative powers in Transport Act 2000	
National Journey Information provision (currently Traveline and National Rail enquiry Service)	Regional coordination of at stop information	local delivery of regional at stop information
		Home to school transport

Table 2 Possible organisational structure – long term

Strategy and policy	Service elements	Infrastructure elements
Regional bus implementation strategy / standards	Regional network design (route identification	regional infrastructure investment programme
quality partnership scheme content development	procure contracted services, contract monitoring	Bus stop information delivery
regional ticketing scheme development	Concessionary Fares Reimbursement	Bus stop maintenance (to be discussed)
	BSSG / BES funding delivery	

8. Staff resources

8.1. The success of this initiative is dependent on the ability to provide full time roles to focus on delivering regional / local functions. There is potential scope to take on a range of functions; however it is important the transition to the new arrangements is undertaken over a realistic period to ensure continuity of provision through the development of skills.

8.2. Initially, it is envisaged a core team comprising senior manager and two support staff would be required. This would include liaison with key stakeholders.

8.3. There have been a number of examples where attempts to transfer all potential functions from the outset has proved counterproductive. It is envisaged the unit would evolve over time. Table 3 indicates the potential for the unit grow, should member authorities wish.

Table 3 – indicative long term team structure

Role	Staff - Initial	Staff - Interim	Staff - Future	notes / responsibilities
Manager	1	1	1	Head of unit, reports to CCRTA joint bus group & board, lead contact with WG/TfW/other regions. Initially strategy/standards lead
Strategy & Standards	0	0	1 lead, 1 officer	Developing of strategy & standards, monitoring of compliance with standards & services
Infrastructure planning	0	1	1 lead, 1-2 transport planners	Developing & delivering of bus infrastructure investment programme in conjunction with LAs, incl. bid development, brief development, contracting consultant support
Infrastructure & information operations	0	1	1 lead, 2-3 mobile staff	Managing of bus stop infrastructure & information (also bus stations if these will be managed regionally)
Integrated ticketing	0	1	1 lead, 1-2 officers	Developing of integrated ticketing systems with TfW, managing concessionary fares, My Travel Pass, Network Rider and any future regional integrated tickets
Network planning & procurement	0	1	1 lead, 3-6 officers	Planning & procuring of section 63 services (supported bus services) using regional funding, supporting development & procurement of LA's local bus services, audit, fraud management
Admin & finance officers	1 officer, 1 assistant	1 officer, 1 assistant	1 lead, 1-3 (finance) admin, 1-3 mystery shoppers	Admin support, office management, grant admin, making payments, etc
Travel Planning Officer	0	0	1-2	Provide public transport travel planning assistance to large employers, hospitals, universities, colleges, etc

9. Next steps

9.1. This paper highlights the resource constraints of current arrangements that necessitate consideration of revisions to existing arrangements; therefore, it would not be possible for officers to devote the required time to establish the team in addition to current duties.

9.2. Subject to board approval, it would be necessary to build a core team to refine the proposal, including management and governance structure within the CCRTA.

9.3. Whilst there is scope to accommodate further staff costs in the current funding arrangements for the Bus Services Support Grant and the Bus Emergency Scheme, this is not guaranteed beyond the current financial year. Therefore there is a request for the CCRTA / city deal to underwrite the cost of establishing the core staff to develop future requirements.

9.4 The level of funding required will reflect the agreed scope of the team; however, it is envisaged there will be a requirement from the Bus Emergency Scheme funding to ring-fence an initial annual budget of £175,000 to support full time employment of a Manager and two support staff, including an estimated 35% to cover on costs.

CCR Rail Vision

Draft paper prepared by
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November 17 2020

DRAFT

Subject to further revisions

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Foreword

As many of you will know, I have been involved in the "Metro" project in the Cardiff Capital Region since its modern inception through my report, "A Metro for Wales Capital City Region – Connecting, Cardiff, Newport an the Valleys"[i] which was published with the Cardiff Business Partnership and the Institute of Welsh Affairs in 2011. Aside from making the case for better regional connectivity the report also highlighted the importance of links between South Wales, Swansea Bay, Bristol and London.

At the time of the 2011 report, there was no executive capacity or capability in either local authorities or Welsh Government (WG) to take on such a large rail-based project. When one considers that rail powers and funding were, as they are today, not devolved, then the prospect of any significant interventions seemed unlikely given only limited interest at best from Westminster.

Yes there were, and have been, many good smaller local schemes that did not run up against the major institutional and funding barriers; so new stations, and the Vale of Glamorgan and Ebbw Valley Lines reopening pursued by the South East Wales Transport Alliance (SEWTA) for example. However, it was clear to me then, that it was Welsh Government (WG) which would need to develop both the intent and capability to make the Metro a reality.

Following my Metro Impact Study in 2013[ii], which was commissioned by the then Minister for Economy, Science and Transport, Edwina Hart, and the earlier Integrated Transport Task Force, and despite the challenges and perhaps to be expected resistance from many, including within the civil service, to its credit WG have made remarkable progress. The Metro was formally announced by the First Minister, Carwyn Jones, on Nov 30th 2015[iii], which complemented the establishment of Transport for Wales (TfW). In the five years since, TfW has undertaken perhaps the most complex rail franchise procurement in the UK since privatisation, the biggest in WG history and are now dealing with the enormity of Covid. Despite that, the next phase of Metro, the transformation of the Core Valley Lines (CVL) through faster and more frequent electrified services, is still planned to be delivered in 2023/4; the new depot being built at Taffs Well is an early sign of progress. This is a remarkable achievement, and yes whilst I expect some further bumps on the road, we should acknowledge just how quickly this project is moving forward when compared to many other similar endeavours. Just ask the residents of places like Leeds and Bristol who have been debating enhanced public transport infrastructure for decades. For me it is very clear, despite the challenges, there would be no Metro without WG and by implication without devolution.

The challenge now, is for the region to show equal ambition and intent to develop plans for the Metro for the period beyond 2023/4 out into the 2030s. Working with the region and building on earlier work, this paper sets out that vision in respect of rail. I have also tried to present some of the wider considerations and the choices that will inevitably be required.

The existential threat presented by the climate emergency is perhaps the most significant and by implication, how do we reduce car dependency? How do we build places designed around public transport and active travel? As important, how do we develop a more sustainable and equitable economy, and how can we afford it?

I have been involved in all stages of the Metro, from its modern inception in 2011, within and outside WG and TfW, and have confidence we can answer these questions. As I have also said previously – we don't really have a choice.

Mark Barry, Professor of Practice in Connectivity, School of Geography and Planning at Cardiff University, November 2020.

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Executive Summary

The Cardiff Capital Region (CCR) is home to 1.5M people, covering a diverse and unique geography from coast to valley to mountain; a history that encompasses the crucible of the industrial revolution, an industry that fuelled the world in the 19th and early 20th Centuries and the foundation of the NHS. It now supports a modern diverse multicultural society drawn from all parts of the world as well as its own unique language and history.

The region is now working together to bring forward ambitious plans for the development and expansion of its public transport network at the heart of a sustainable and more equitable economy. This paper is focussed on its strategic rail priorities.

The Climate Emergency and a need to reduce our car dependency

In developing a coherent vision for rail and integrated transport across the Cardiff Capital Region, the existential threat of the climate emergency demands that our priority is to bring forward proposals that radically change our mobility ecosystem. This is in line with our broader environmental and well-being obligations and goes beyond purely transport interventions.

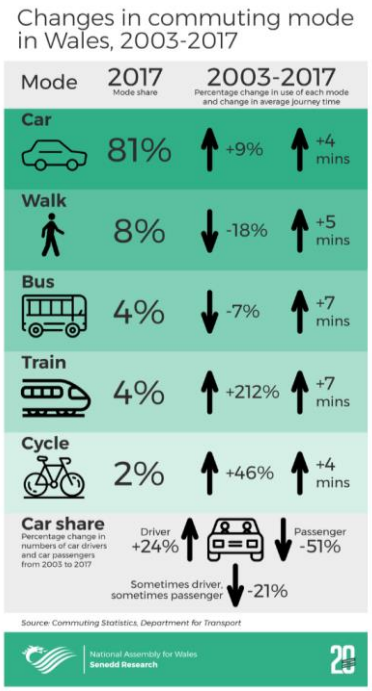

Figure 1 Senedd Research, Commuting mode share in Wales 2017

The implicit need to decarbonise infers a need to significantly reduce our car dependency, which makes up (pre-Covid) 80% of commuting mode share *Figure 1.* This is important, as car use is responsible for over 60% of transport CO_2 emission; even a completely electrified car eco system with power generated entirely through renewables, would only reduce the total emissions by between 50~60%. Whilst this would be welcome, we need to go further.

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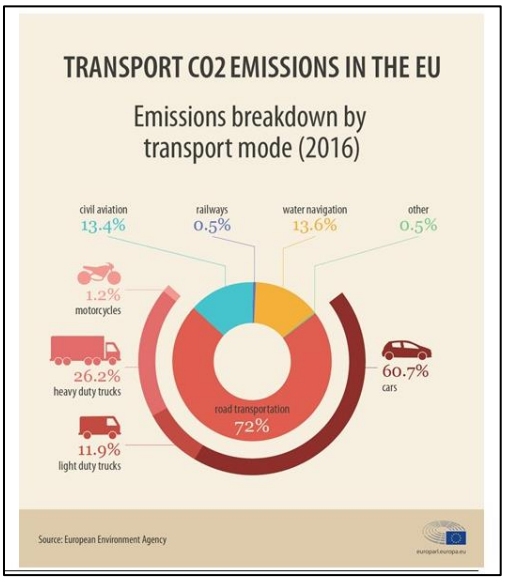

Figure 2 CO2 emission by mode, EU 2016[iv]

Much of the growth in car use from the relatively low levels in the 1950s and 1960s, has been enabled by the phenomenon of induced demand resulting from road building enabling new car based developments that have generated a need for more car trips, requiring more road space to accommodate them. An unvirtuous cycle. It is also a stark reality that vast majority of the world's cars spend perhaps 95% of their time doing nothing. Aside from being a grossly inefficient use of scarce natural resources, having to design our cities around cars when they are not moving is as bad as having to do so when they are.

As was the case across the UK during the 1950s-1970s, a lot of our rail infrastructure was pulled up and built over given the huge growth in car ownership and usage[v] *Figure 4*. The folly of those interventions is only now being recognised given the growth in rail usage over the last twenty years and now the urgent need to address the climate emergency.

We need to seriously consider what sort of future we want. If we can secure a sensible and reasonable shift to public transport and active travel, we will find that we have more than enough road space for those that still need or choose to use cars for particular journeys.

Figure 3 What sort of future do we want? (Los Angeles Traffic on I 405)

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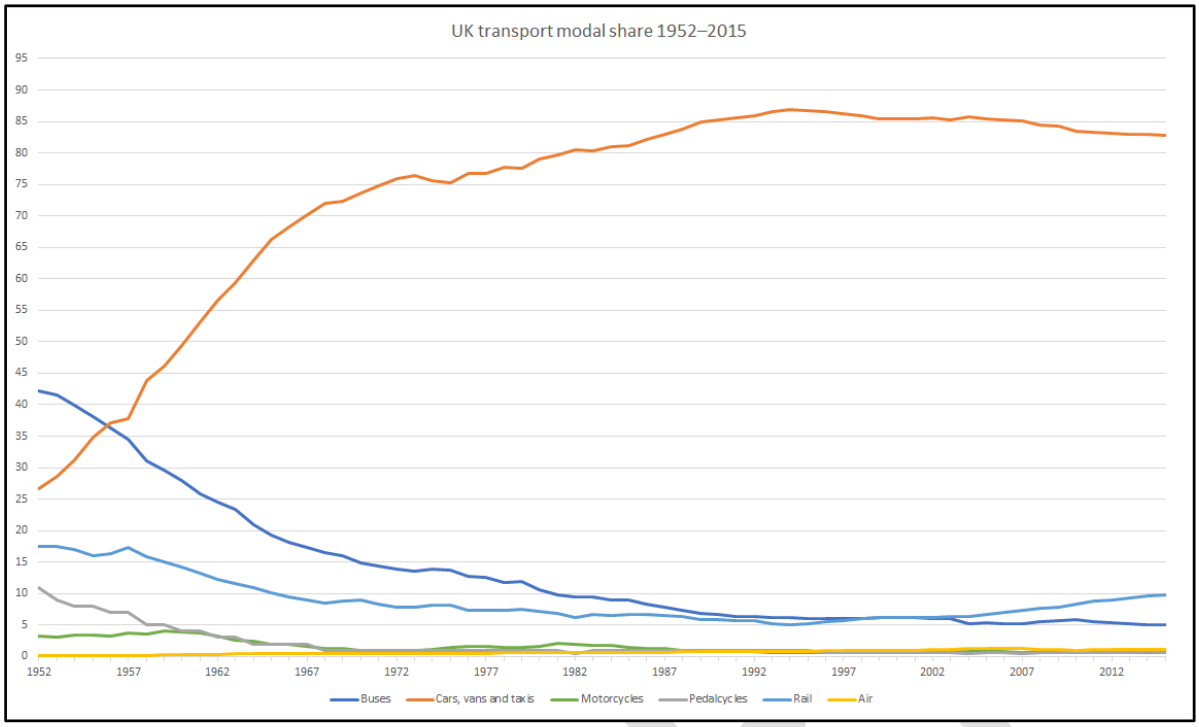

Figure 4 Passenger Transport % in UK 1952 – 2015

We have also become de-sensitised to the enormous social costs borne by all of us resulting from car use; 160,000 road traffic accidents (RTAs) per year[vi], 23,000 serious injuries and 1,700 deaths as well as 20,000 to 30,000 premature deaths each year resulting from poor air quality.

It's in this context that a road user charge is desirable to change behaviours, raise capital and to fairly apportion more of the societal external costs of car use to car users.

Levelling Up and Sustainable Economic Development

As important, there is also a complementary need to develop a sustainable and more equitable economy and to, "level up", as the UK Government has stated[vii]. These are broad words which need real thought in scheme development and implementation and goes beyond transport. We can't continue to feed an economy that does not account properly for the irresponsible depletion of natural resources, our environment and the excessive production of CO2. Similarly, the challenges of post-industrial decline impacting many other parts of the UK, as well as CCR, requires more than rhetoric. Levelling up requires, as WG have stated, positive discrimination in how funding and investment decision are made. WG and UK Gov can and must work together with the CCR to address this challenge.

Post Covid flexible working and Transit Oriented Development

Now the impact of Covid and the phenomenon of more flexible working (through some home and local workplaces) will alter demand patterns. The real opportunity is to try and reduce the peakiness of movement so that less of us are having to travel at peak times in one direction twice a day. If we can also embed Transit Oriented Development into our planning and development ecosystem, we can begin to encourage the relocation of more of our shops, offices. schools, hospitals, etc away from car based out of town locations, back to our town and city centres where good public transport is easier and less costly to deliver.

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Vision

A strategic public transport network for the Cardiff Capital Region providing a high-quality, reliable, efficient and affordable transport services to support sustainable economic development and social regeneration.

The key feature of the CCR vision is of a high quality, integrated grid of public transport services (rail and bus) that presents a single joined up network to the passenger. The ultimate aim is to reduce car use to perhaps 40% or less (which was common until the 1950s) and so implies a significant increase in public transport and active travel – from a total mode share of 20% today, to closer to 60%. In parallel the vision anticipates a range of transport related economic and development interventions right across the region.

In the short term, this will be about: re-designed bus networks integrated with new metro rail services planned as part of the next phase of Metro by 2023/4, delivering integrated fares and ticketing and the development of Metro Central. However, the vision goes beyond that and sets out an ambition for an expanded integrated rail backbone to be developed and delivered over the next 10-15 years.

Rail Network and Services

The key rail components of the vision are

- A major upgrade of the SWML to form the backbone of the region's public transport network through new stations and a mix of intercity express and local commuter services; more specifically there is a need for more services from Bristol Tempe Meads though Newport and Cardiff to Swansea and West Wales
- Measure to address bottlenecks on the rail network to allow more services to Ebbw Valley, Marches Line, Maesteg Branch, The VoG line and the City and Coryton Lines in Cardiff
- Enhancements to the core valley lines through re-use of freight (e.g. Aberdare Hirwaun) and the introduction of further new stations, in addition to those included in the core CVL transformation
- The Cardiff Crossrail and NW Corridor will deliver high quality & frequent PT services across much of urban Cardiff, Cardiff Bay and extend into RCT to Talbot Green and Pontyclun. It will support more sustainable, connected and densified housing development along the entire corridor as well as enabling new development in Cardiff Bay and Talbot Green.
- Radically enhanced Cross Valley links, using both bus and tram-train, can help re-orient the region's economic geography from being more than just trips to/from Cardiff and so support more development in places like Pontypridd
- In the longer term there is the potential to re-connect Caerphilly with Newport with rail services using tram-train, the on-street tramway capability of which can be applied in Newport to help avoid conflicts with the congested SWML
- Schemes across the UK that could help the CCR economy have also been identified These include Western Rail Access to /Heathrow, and, as important, enhancement to HS2 Phase 2 and the rail lines south west from Birmingham to allow more services to/from Cardiff to use the northern arms of HS2 to serve places like Manchester, Leeds, Sheffield, Newcastle and onto Edinburgh and Glasgow.

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Bus Services and Integration

Whilst not addressed here in detail, aligned to this rail programme is a need to redesign bus networks to formally integrate and so provide the joined-up single network passengers expect. This is essential to attract some of the 80% of people who currently (pre-Covid) use cars for most of their journeys.

Wider Benefits, Regeneration and Transit Oriented Development

WG had already identified formal transport user benefits of up to £1Bn that could be realised through enhancement to the SWML in its 2018, "Case for Investment"[viii]. Enhanced regional connectivity will also enable more efficient labour markets and help develop the regional economy. In addition, there are wider environmental and wellbeing benefits that can be realised – reduced carbon emissions, improved air quality and reduced RTAs are perhaps the most significant.

This programme also presents the opportunity to augment these benefits through a range of station focused development and regeneration interventions to maximise the benefits of the investment in our public transport network. These include:

- Cardiff City Centre and Bay
- Newport City Centre
- Nantgarw/Trefforest
- Pontypridd Town Centre
- Barry Town
- Bridgend
- There are also a range of smaller more community focussed interventions that can be progressed at places like Porth, Caerphilly, Pontypool and Butetown.

The full range of schemes presented here, plus the wider benefits enabled, can significantly boost the benefits beyond the £1bn transport user benefits calculated by WG in 2018, and justify a major capital programme over the next 15 years of perhaps £2Bn.

Primary Next Steps

The primary steps to necessary to progress this vision are that the CCR work collaboratively with key partners (including local authorities, WG, TfW, UK Gov) to:

- Secure support from right across the region
- Further develop and refine these schemes through TfWs Programme and Scheme Business Case Development programme; this work will confirm scope, phasing and costs of these emerging proposals
- Secure commensurate long-term capital funding; including consideration of a form of "road user charging"
- Bring forward public transport focussed economic development and regeneration interventions across the whole region.

Professor Marquand from the School of Industrial Relations at Cardiff University, who first set out the metro concept in his book "South Wales Needs a Plan", published in 1936, would no doubt welcome these proposals.

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Key Interventions Summary (Map)

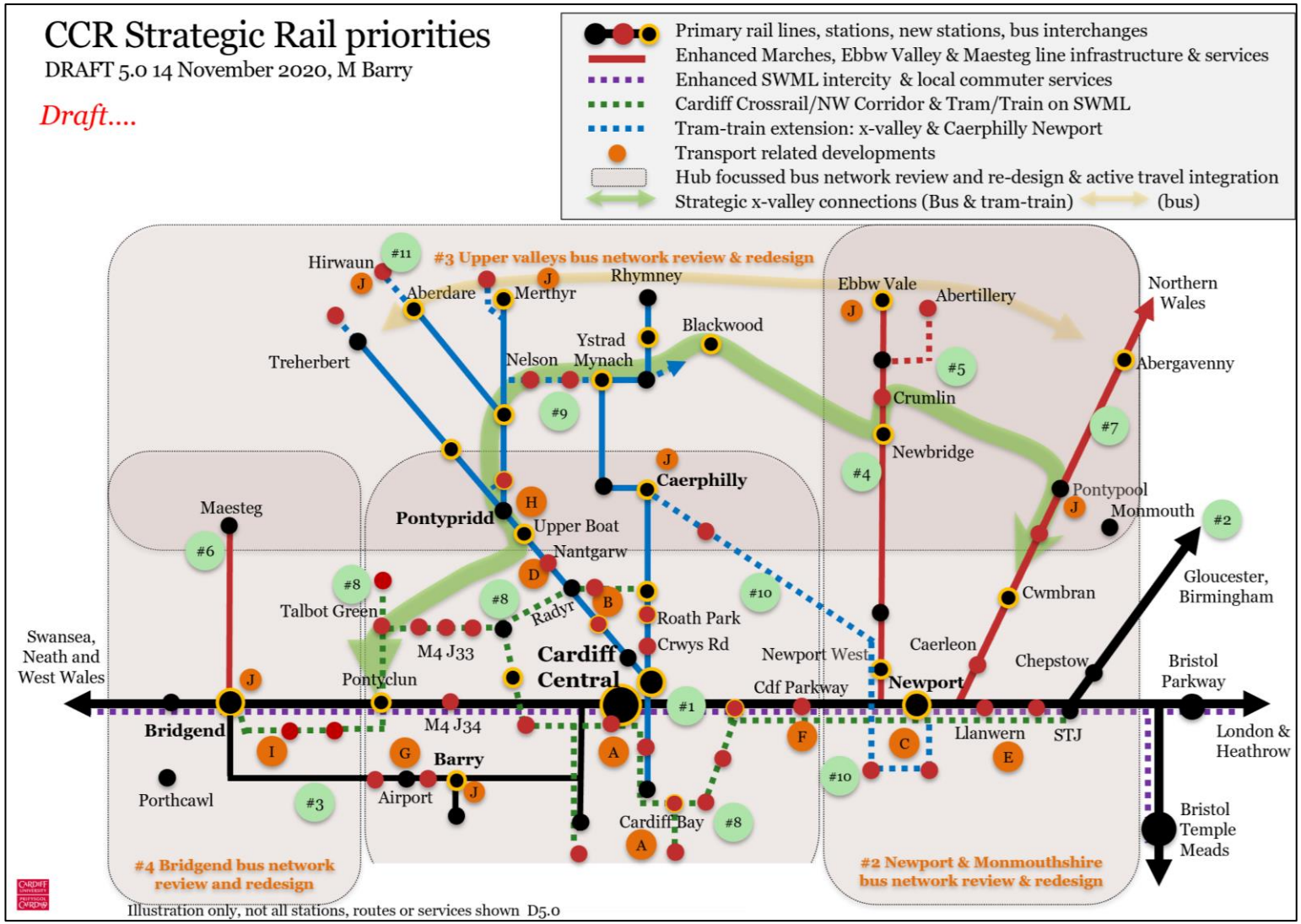

Figure 5 CCR Strategic Rail Priorities

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Key Interventions Summary (Schemes)

Priority Rail Schemes
#1 South Wales Main Line (SWML) Upgrade
#2 Route and service upgrade to Birmingham
#3 VoG service enhancements
#4 Ebbw Valley service enhancements
#5 Abertillery spur
#6 Maesteg line service enhancements
#7 Marches line service enhancements
#8 Cardiff Crossrail & NW Corridor tram-train - City and Coryton link and service upgrade - Bay line extension to Rover Way - Tram-train on SWML to Newport/STJ - NW Corridor to Pontyclun - Extend tram-train west from Pontyclun - Extend tram-train to Penarth and lower Penarth
#9 Mid-valley tram-train connection - Tram-train from Rhondda to Ystrad Mynach via Pontypridd, Abercynon and Nelson - New Stations at: Pontypridd bus station, Nelson, Tredomen Business Park
#10 Caerphilly-Newport tram-train - Re-use and extend Machen freight bracnhg to Caerphilly - On street "tramway section" over SWML and via Royal Gwent
#11 Aberdare-Hirwaun

<>

Economic Development Sites & Regeneration Opportunities
A Cardiff Central, Central Quay, Butetown and Cardiff Bay
B GE Life Science Innovation Park
C Newport Knowledge Quarter
D Nantgarw/Treforest Industrial Estate
E Llanwern/Glan Llyn
F Hendre Lakes/Cardiff Parkway
G Cardiff Airport/St Athan Business Park
H Development and regeneration in Pontypridd
I Llanilid
J Local Regeneration Opportunities

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Policy Context

The ten local authorities in South East Wales have come to together to form the Cardiff Capital Region[ix] with an intent to support sustainable economic development across the whole region. In doing so the need to develop skills, support innovation and implement improved physical and digital infrastructure is of paramount importance. In the face of global pandemic and the climate emergency now is the time to be clear on priorities across the region.

This paper sets out the priorities for investment in strategic rail services and infrastructure over the next 10-15 years. This is important as rail services will provide the backbone of an integrated public transport network across region and enable complementary measures in respect of integrated bus services, active travel and transit-oriented development (TOD).

These proposals augment those already in development via CCR, Welsh Government (WG) and Transport for Wales (TfW). These include the current WG work being delivered by TfW to implement the £740M transformation of the core valley line with more and faster electrified services, which is due to be completed by 2023/4; as well as the CCRs Metro Plus Programme[x] , Metro Central and the Metro Enhancement Framework, which is bringing forward a range of tactical measures across the region to improve accessibility of public transport.

Cardiff Capital Region

The importance of enhanced transport connectivity has been highlighted by the Cardiff Capital Region's Economic Growth Partnership in its "Industrial and Economic Growth Plan"[xi] which emphasised that connectivity is critical – both digital and physical:

" The region needs a reliable infrastructure that connects the region, both within and wider afield, to boost productivity and prosperity. The current Metro plans are a significant step in this direction, and we will bring forward further proposals to maximise and unlock future potential offered by its development. We will ensure that we have a road, rail, air and digital infrastructure (fixed and mobile) to connect us to the world. Working with our partners we will (in respect of transport):

- *Continue to work closely with the UK and Welsh Governments to further develop, enhance and implement the transport network to improve links within the region, reduce congestion and connect people*
- *Embrace the Metro as a backbone to connecting CCR and shaping places on its networks*
- *Develop a series of strategic employment spaces across the region to meet the needs of businesses*
- *Develop proposals for energy efficient and accessible housing*
- *Utilities networks – ensure, for example, we are ready for the future of electric and/or hydrogen vehicles*

A region wide strategic focus Figure 6 will enable key towns across the region to be connected ensuring that the growth of the economy is balanced and inclusive"

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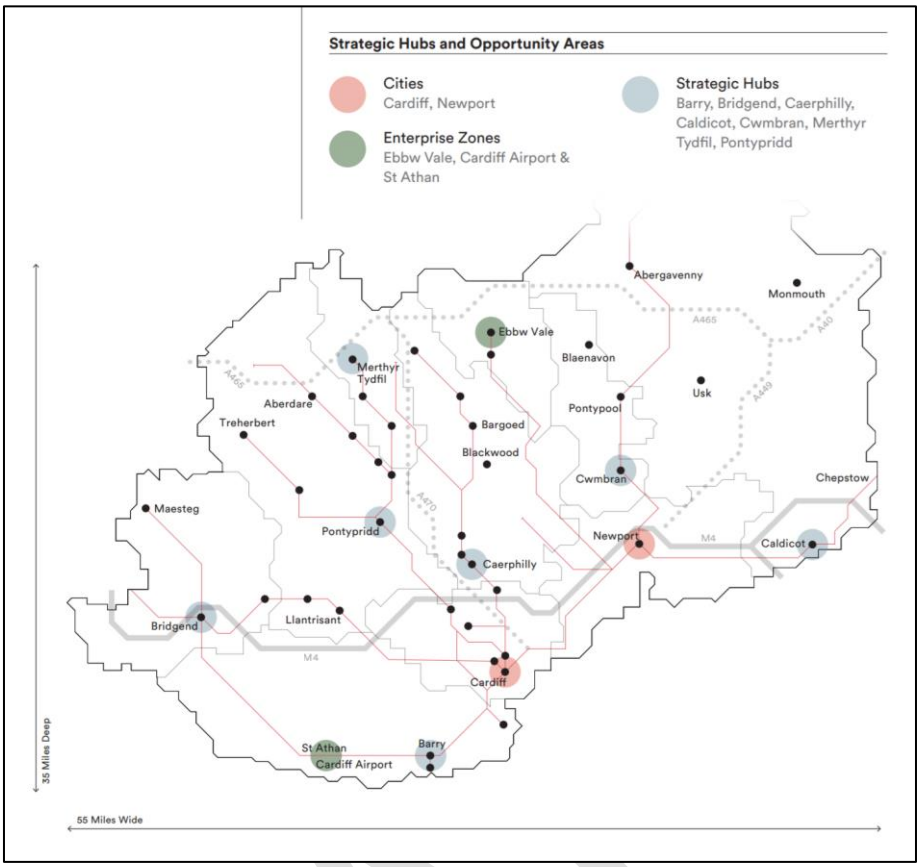

Figure 6 CCR Strategic Hubs & Opportunity Areas (CCR Industrial & Economic Growth Plan)

Regional Transport Authority (RTA) and Metro Enhancement Framework

As part of the City Deal arrangements the region established a nascent Regional Transport Authority (RTA) which has overseen the development of the Metro Plus package of measures and schemes such as Metro Central[xii].

In 2019, WG and the region via its nascent RTA, agreed a methodology, The Metro Enhancement Framework, to appraise potential locally focussed interventions from across the region. This is based on 13 transport corridors *Figure 7* across the region:

- Cardiff Central
- Cross Valley (Mid)
- Cross Valley (North)
- Cross Valley (South)
- Eastern Valley
- Ebbw Valley
- Maesteg/Porthcawl/Bridgend/Cardiff
- Newport-Cardiff
- Chepstow Newport
- NW Corridor
- Rhondda Valley
- Rhymney Corridor
- Vale of Glamorgan

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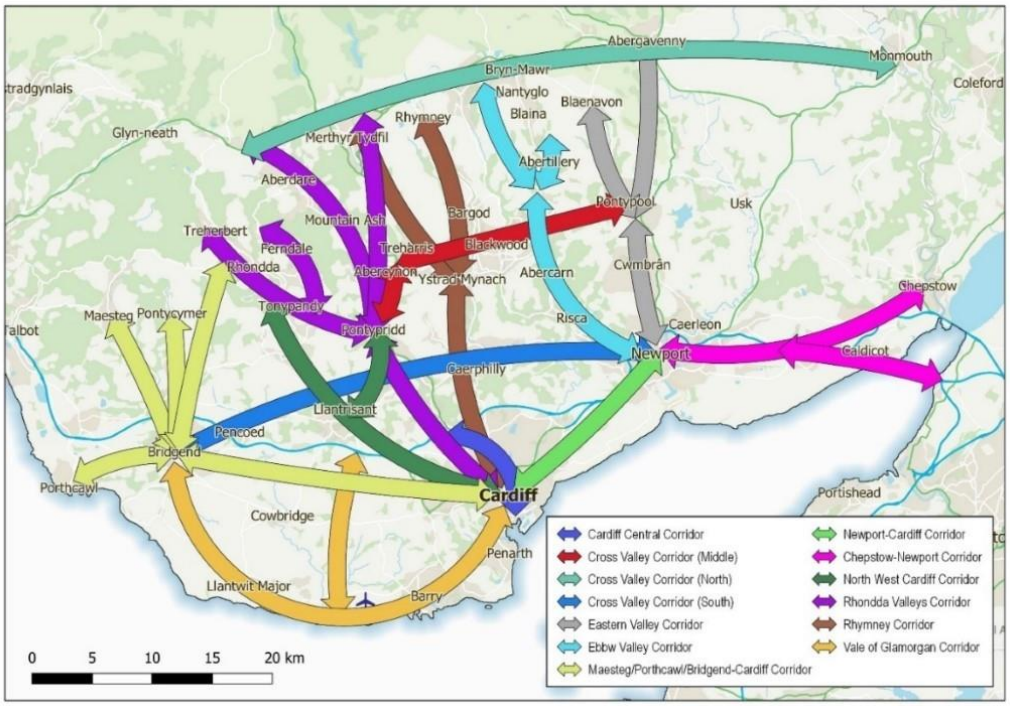

Figure 7 MEF Corridors

Using these corridors, further work is ongoing to assess the strategic options using Welsh Government Transport Appraisal Guidelines (WelTAG) related to:

- Chepstow- Newport
- Maesteg/Porthcawl-Bridgend & Cardiff
- Vale of Glamorgan - Cardiff
- NW Corridor-Cardiff

Whilst this work provides a comprehensive foundation for future local scheme development for much of the region, there are three key areas that require additional analysis. These are:

- Urban movement within Cardiff
- Urban Movement within Newport
- A high-level strategic assessment of the key issues and opportunities when looked at a regional level; *this paper provides that framework in respect of rail priorities*
- An assessment of WEB and regeneration that could be enabled – with a focus on major developments and stations; *this requires further discussion with regional partners and Welsh Government*

Most of the issue/opportunities related to movement within Cardiff have been captured by the local authority in its Transport White Paper[xiii]. This paper provides a strategic overview of the priority emerging rail schemes on a regional basis.

All of the aspirations set out in this paper and schemes developed through the MEF process, will be further developed via TfW's emerging Metro scheme development programmes using WelTAG and informed by the South East Wales Transport Model (SEWTM). Overall Strategic Programme Case are being developed by TfW for both the CCR and the Cardiff Core Metro, to help position and prioritise all the emerging transport proposals (rail, bus and active travel). The RTA and key local authorities are fully engaged in their development.

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Welsh Government

In developing its position on strategic rail priorities, the CCR is also reflecting both broader WG policy and specific transport proposals as set out in WG policy documents and supporting statements. These include:

- Prosperity for All: The National Strategy[xiv]
- Well-being of Future Generations (Wales) Act 2015[xv]
- National Development Framework[xvi]
- Welsh Government Low Carbon Plan[xvii] & Air Quality Plan[xviii]
- Environment (Wales) Act 2016[xix]
- Policy Statement: Accessible and Inclusive Public Transport Objectives 2017
- Wales Transport Strategy[xx] (emerging & draft)

More specifically, Welsh Government has also been developing its vision and priorities for rail through a number of documents and statements; these complement similar statements from the South East Wales Transport Commission, the regions local authorities and the Cardiff Capital Region. Collectively, these include:

- 2018, The Case for Investment and supporting Programme Strategic Outline Cases (PSOCs) **[xxi]**

  This, identified over ***£2Bn transport user benefits*** that could be realised across Wales with a commensurate capital investment programme; this figure would be higher if the full range of schemes Welsh Government has in development, and Wider Economic Benefits, are considered.

- 2019, A Railway for Wales[xxii] [xxiii]

  This sets out the case for devolution of rail powers, current plans, wider well-being considerations and ambitions for future rail development & innovation across Wales. This was supported by a statement setting out the Welsh Government's key service and journey time aspirations which included extensions of the south Wales Metro and the need to deliver at least 4tph for urban Metro services

- The emerging findings of the South East Wales Transport Commission (SEWTC)**[xxiv]**

  This works sets out the importance of significant further investment along the South Wales Main Line (SWML) corridor (via more capacity additional services and stations) to provide the backbone of an integrated public transport network across the whole of South Wales

- Further formal scheme and busines case development work undertaken by TfW, WG, and/or local authorities related to projects like Ebbw Vale frequency enhancement, Maesteg frequency and Cardiff NW Corridor/Cardiff Crossrail[xxv]

- Network Rail has also been developing Strategic Outline Cases (SOCs) under guidance from the Department for Transport (DfT) for schemes including: Relief Line Upgrade and Swansea Cardiff journey times. Whilst welcome, these fall some way short of the Welsh Government's strategic ambition for the rail network in Wales.

- October 2020 Rail Enhancement Priorities[xxvi]

  To succinctly bring together all the emerging strategic priorities for rail enhancements across Wales, WG produced its Rail Enhancement Priorities. In the CCR this re-stated the need for a major upgrade to the SWML, measures on the Ebbw Valley, Marches and Maesteg Lines and schemes like NW Corridor/Cardiff Crossrail

Despite the limitations of the devolution settlement in respect of rail powers and funding, WG has nonetheless, via TfW, progressed the next substantive phase of the South Wales Metro. This will

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deliver significant benefits as a result of the current contracted £740M Core Valley Line (CVL) transformation[xxvii] and provides the foundation for the proposals set out here.

UK Government

It is welcome that the UK Government is now exploring the opportunity to ”level up” rail investment across the UK; it should also be recognised that the ultimate success of the Cardiff City Deal and the key role of Metro within it, acknowledges the relationship between economic development and transport connectivity.

The recently announced UK Government, Union Connectivity Review[xxviii] also presents an opportunity to address some of the issues that still constrain rail services in the Cardiff Capital Region. The CCR would welcome an opportunity to contribute to the work of Sir Peter Hendy who is leading the review for the UK Government.

The CCR also supports Welsh Government's view *that genuine 'Levelling up' cannot simply mean a sprinkling of new, ad hoc rail projects decided in Whitehall, it has to be part of a strategic approach to promoting growth in all parts of the UK. Neither can it just be about equality of access – merely the ability to 'bid in' to new funding sources - it must be about outcomes and a genuine attempt to narrow the real world gap in terms of rail infrastructure investment between Wales and the rest of the UK. This requires a degree of positive discrimination to counter the inbuilt advantages of areas like the Southeast of England. 'Levelling up' has to be something which meaningfully involves devolved governments in the design and governance of its approach.*

This is even more important given the scale and potential economic impact of rail schemes being developed elsewhere in the UK (especially HS2) which has the potential to negatively impact the Welsh economy without further transport interventions.

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Economic Context

It is essential that the Region's connectivity is enhanced, both internally and externally to key UK and international centres. This will improve access to employment for all of the communities within south-east Wales, whilst allowing the seamless and efficient flow of people and goods.

These aspirations are reflected in the Cardiff Capital Region City Deal's objectives which are to create a local economy that is Connected, Competitive and Resilient. It published three reports setting out further details of these themes and which provide context for the emerging rail priorities:

- State of the Region Part 1: Connected[xxix]
- State of the Region Part 2: Competitive[xxx]
- State of the Region Part 3: Resilient[xxxi]

Some of the key economic and demographic data for the region have been published in complementary papers; a brief summary of is set out below. It should be noted, that having some of these metrics recorded and presented at local authority level can sometimes be unhelpful when looking at the region as a whole or when a more granular analysis at Lower or Middle, Super Output Area (LSOA, MSOA) maybe more informative. The reality is that there are range of different issues, challenges and opportunities right across the Cardiff Capital Region as well as differences in some measures even within individual local authorities.

Population

In respect of population[xxxii] the combined 2019 mid-year estimate for SE Wales was 1.54M with Cardiff by far the largest at 364,000; RCT is the next largest on 241,000; Blaenau Gwent is the smallest at 70,000. The ONS also identified (based on 2011 numbers) the population of the Cardiff Built Up Area (BUA included parts of VoG, Caerphilly and RCT) at 447,000 with a density of 43 people per hectare[xxxiii] making it one of the most densely populated BUAs in the UK. The Newport BUA was 306,000, Tonypandy 62,000, Merthyr 43,000 and Aberdare 31,000.

Understanding the demographic and especially density and extent of built up areas is important as it can indicate which modes and services maybe most appropriate.

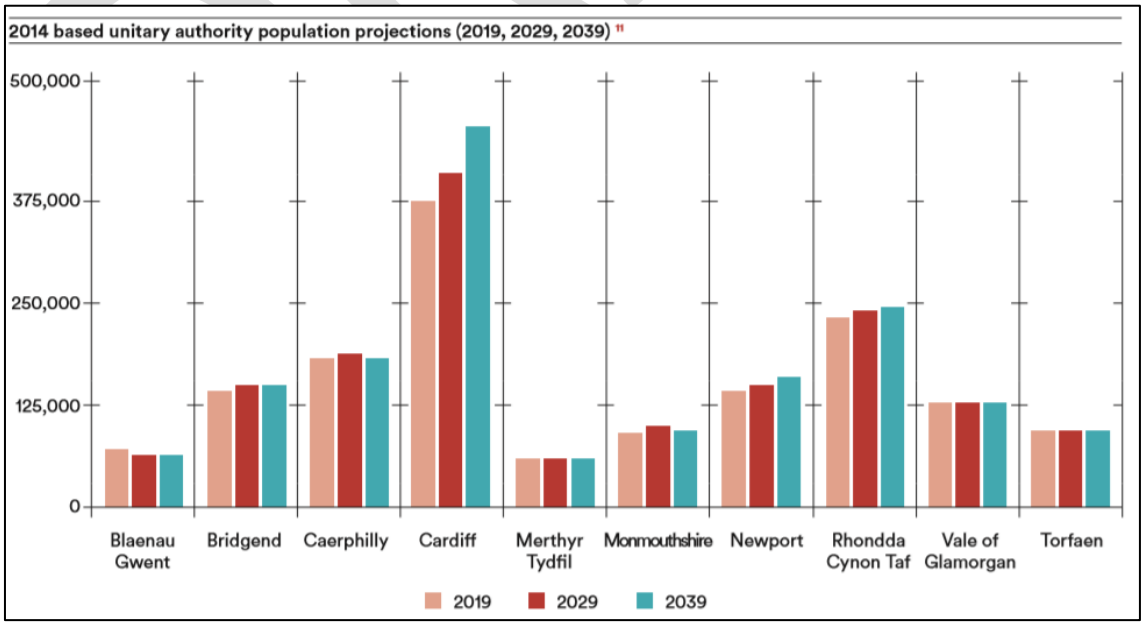

Figure 8 Estimated and projected population in CCR

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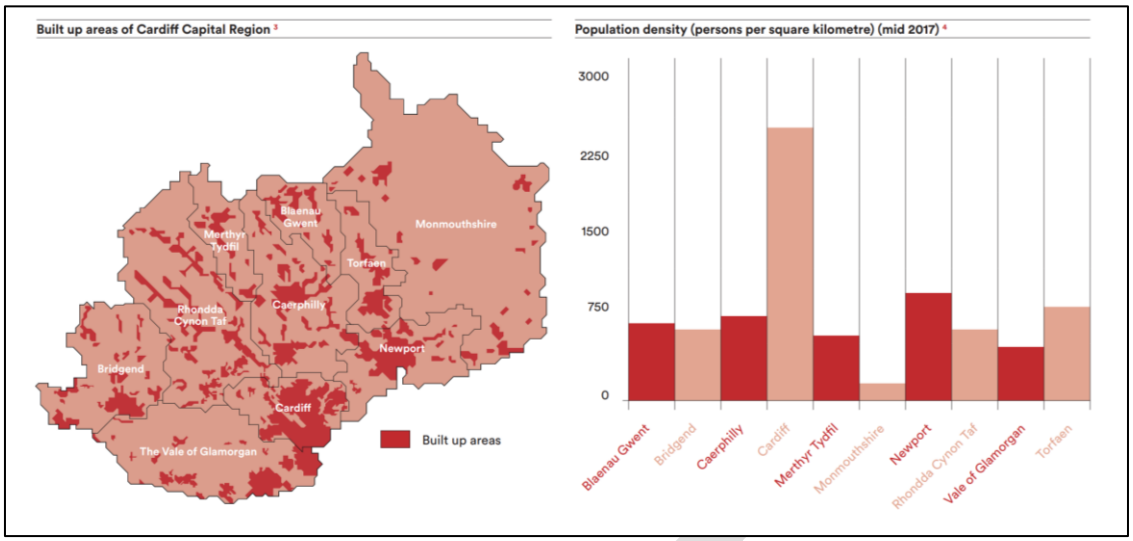

Figure 9 Urban areas and population density

Economic

The regional GVA[xxxiv] in 2018 of SE Wales was 77% of the UK average. Whilst commuting figures distort local authority GVA numbers, Cardiff was highest on 113% with Blaenau Gwent the lowest on 46%.

The figures for Gross Disposable Household income[xxxv] shows that the wider region is 80% of the UK average; Monmouthshire being the highest at 102%, followed by the Vale of Glamorgan at 92%; Cardiff was about the same as Newport on 81% with Blaenau Gwent the lowest on 67%. Weekly wages are highest in the region[xxxvi] in VoG, Monmouthshire and Torfaen. Cardiff, with 39, has more Lower Super Output Areas (LSOA)[xxxvii] in the top 10% of the Welsh Index of Multiple Deprivation (WIMD) than any other local authority in Wales[xxxviii], the next nearest is RCT on 27 with Blaenau Gwent on 6.

Commuting & Mode Share

The scale of movement within the region is also complex, with by the far the most movements to/from and within, Cardiff. However, there is much cross-region movement. For example, as per Stats Wales data[xxxix]: overall there are a total of 717,000 working residents in the CCR of which 660,000 live and work within the region with 57,000 commuting out (includes approximately 25,000 to Bristol and SW England and 12,000 to Swansea and West Wales) and 33,000 commuting in. This a net out-commute of 24,000 leaving an overall working population in the region is 693,000; with 260,000 in Cardiff and 433,000 elsewhere in region.

Within the region, 162,000 people live and commute in Cardiff with 32,000 commuting out and a further 99,000 commuting into the city. For Newport, 43,000 live and work in the city, 28,000 commute out of the city and 35,000 commute in. In comparison the figures for Blaenau Gwent are 13,000, 17,000 and 5,000. The visualisation of ONS 2011 data illustrates the patterns *Figure 10* which demonstrate the very different mobility challenges across the region.

In terms of mode share, the region is still over reliant on car use, which for commuting makes up over 80% of journeys.

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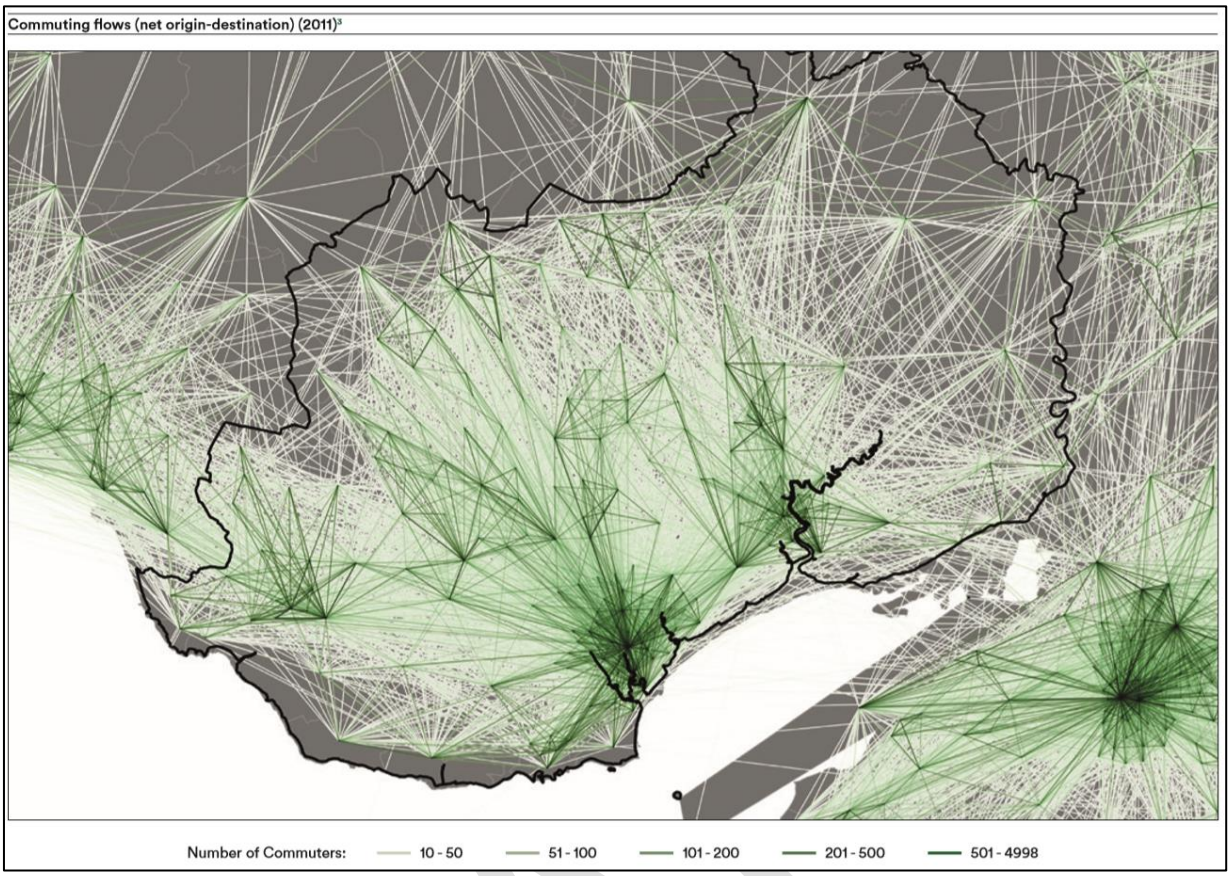

Figure 10 Commuting Patterns (Source: ONS: Census of population, 2011)

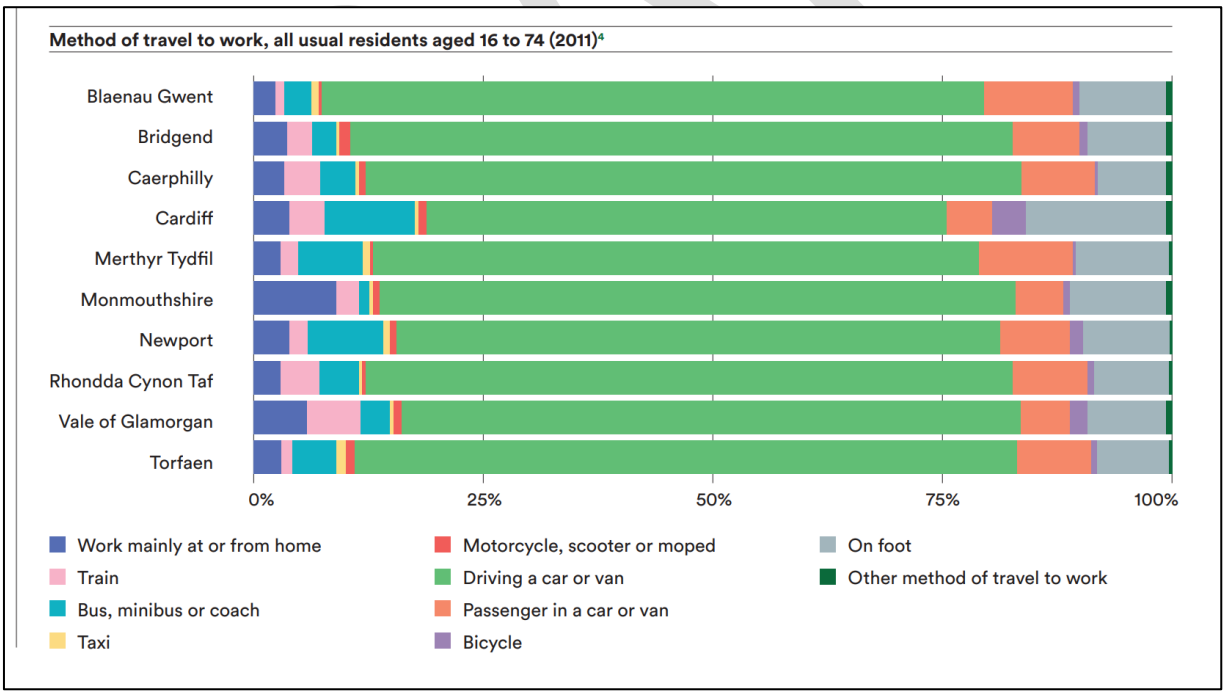

Figure 11 from CCR Report – Mode Share

Relationship with South West England and Swansea Bay

Over 3M people live between Swindon and Swansea *Figure 12* including the cities and city regions of Bristol, Cardiff and Newport; a combined urban area that that has major agglomeration potential across multiple industries including financial & professional services, semiconductors, biotechnology, and TV/Film production.

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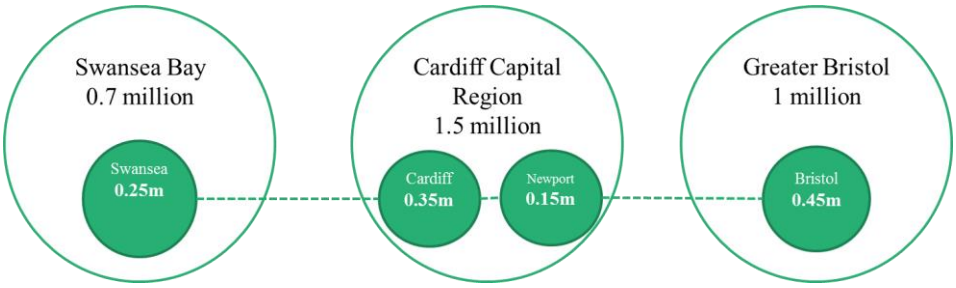

Figure 12 GWML/SWML serves over 3M from Bristol to Swansea

This potential was set out in 2018 by the Office of the Secretary of State for Wales[xl]. This ambition though is dependent on enhancing rail capacity and reducing journey times between the Swansea Bay City Region, the Cardiff Capital City Region, Bristol, London and Heathrow.

The South Wales and SW England regions have more than 10 universities, and a £107 billion economy consisting of 156,000 businesses including growing financial and professional services, advanced engineering, creative and digital media sectors. The area also benefits from a unique and varied natural environment.

The role of Wales' leading higher education institutions and their impact on the national economy should also be noted; Cardiff University for example is one of the UKs leading research universities being ranked in the top five in the last formal research excellence assessment in 2014 [xli]. Its role was crucial in the recent Cardiff Capital Region[xlii] City Deal agreement to develop a compound semiconductor cluster[xliii] in the region.

A report, by Metro Dynamics[xliv], set out a strong evidence base for a cross-border partnership, presenting recommendations that would drive improved infrastructure, investment, internationalisation and inclusive growth across the South West England and South Wales.

One of the priorities of that report was, *integrating road and rail improvements to enhance connectivity.* This priority has been refined into a set of connectivity objectives in the Spring 2020 Western Gateway Prospectus[xlv]. In summer 2020 the Western Gateway Sub National Transport body published its draft strategic transport plan[xlvi].

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Transport Context

In developing a policy foundation for further rail scheme development there are a number of strategic issues that need be considered, and which have been previously set out and/or documented in earlier studies and reports. These include, but are not limited to:

- Road congestion, especially on the A470, M4 and both urban Newport and Cardiff
- Poor east-west public transport connectivity, especially cross valley
- Poor bus/rail integration
- Significant population growth in Cardiff
- Significant car-based development across the region resulting from poor transport/land use choices
- Air quality and health issues resulting from car/vehicle pollution as well as the broader societal costs of both pollution and road traffic accidents
- Limited Active Travel infrastructure

Now, the "Climate Emergency" and the cancellation of the M4 Relief Road, infers a need to develop more public transport capacity in South East Wales. With Covid and a potential change to working patterns, a more holistic review of travel demand will also be required to inform this programme. TfW's Transport Modelling capability, the emerging Wales Transport Strategy and Welsh Government Transport Appraisal Guidelines (WelTAG) will provide the framework for all scheme and business case development.

Transport Planning and Choices

When developing schemes and busines cases, transport planners have to weigh up and assess a wide range of costs and benefits and reflect the needs of current and potential passengers, as well as the needs of operators and governments. Contributory factors include congestion, demand, capacity, PRM compliance, station design, integration, service frequency and costs – both capital and revenue. There are few "right answers", only choices with implications, based upon priorities. For example:

- Services that aim to ***maximise coverage***, especially where demand is low, can add to opex per passenger
- Services that ***maximise ridership & demand*** typically result in lower cost per passenger & more efficient operations, but may not serve everyone at all times
- Service with "***turn up and go" frequency***, especially where local catchment is high can increase demand and reduce opex per passenger; however in areas of lower total catchment or off peak, can add to opex and increase costs per passenger
- Services with ***low and subsided fares*** can attract more demand but makes incremental service expansion more costly
- ***Segregated operations*** (via rail, bus lanes etc) enable faster more reliable and attractive services (so higher demand and fares) with lower opex.

Choices always have to be made and transport planners do their best to develop schemes and business cases that deliver the most value to most people; they also have to assess a range of alternative measures to deliver the same outputs. This is what WelTAG tries to achieve.

Perhaps the primary consideration to acknowledge is that the region needs to develop a transport network and services that can attract some of the approximately 80% of people who chose to use

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their cars. There is clearly a large untapped market for PT use so the region needs a better product designed more around what the 80% want and perhaps less so the 15% already using PT.

Key rail issues

As context for the choices, the following represents a summary of the key rail issues that have been identified through the body of work undertaken in South Wales in the last few years:

- Rail journey times to/from Swansea/west Wales to Cardiff and Bristol/London are poor.

  Much of the South Wales main line (SWML) is a 90 mph railway or less vs 125 mph east of Bristol Parkway *Figure 13*; this constrains demand & encourages more car usage on already congested roads, with consequential air quality impacts.

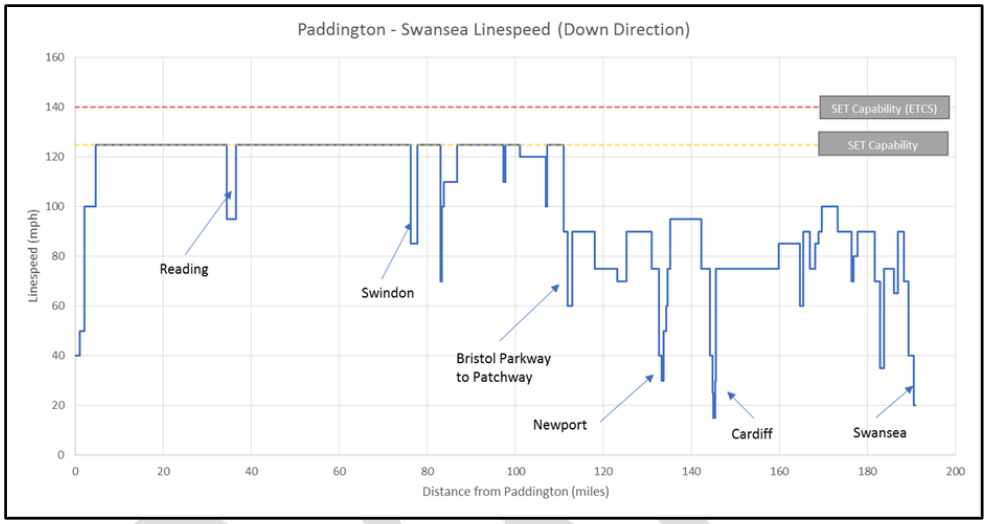

Figure 13 Line speeds on GWML between Paddington and Swansea (source ARUP)

- Low service frequency and overcrowding from Cardiff to Bristol Temple Meads – 2tph. This is major constraint on rail use and in stark contrast to the provision of 6tph between Leeds and Manchester, the demand for which NR estimated in their 2043 route studies is only marginally higher than the demand between Cardiff and Bristol.
- Capacity constraints on the Ebbw Vale and Marches lines limits the operation of more local services in/around Newport; other key rail bottlenecks include Ebbw Junction, Cardiff West junction, the two-track main line between Cardiff and Swansea and the Maesteg branch.
- Much of east Cardiff and Newport, the areas around Blackwood/Pontllanfraith, west Cwmbran and Church Village are poorly served by rail and integrated regional public transport, contributing to more car use, congestion, and air quality issues.

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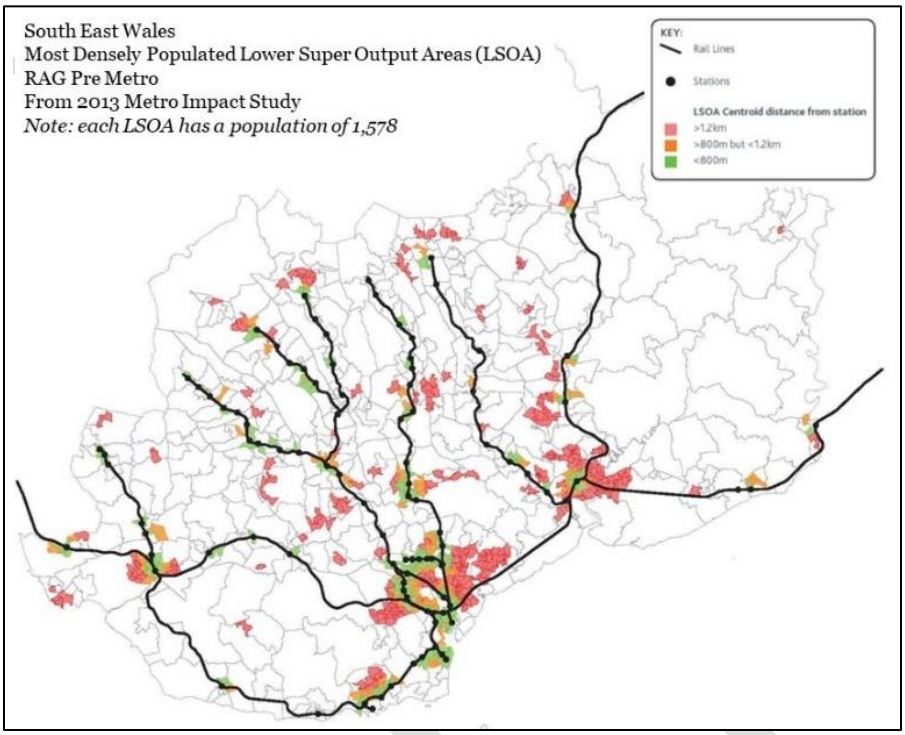

Figure 14 Population Density Vs Access to Rail Service from Metro Impact Study 2013[xlvii]

Broader extra regional requirements

Like Northern Powerhouse Rail, there is a need to deliver strategic enhancements to the rail network and services between the key centres of Swindon, Bath, Bristol, Gloucester, Cardiff, Newport and Swansea as well as wider connectivity to/from South Wales, South West England and the English Midlands.

However, current rail infrastructure and services are not commensurate with the emerging ambition for the region and are limited in respect of both capacity and speed. For example, the 84-mile rail journey from Swansea to Bristol Temple Meads takes over two hours and requires interchange at Cardiff. In comparison the Northern Powerhouse is already delivering (via NR) the £3 billion Trans Pennine upgrade[xlviii] between Leeds and Manchester with potentially the multi-billion Northern Powerhouse Rail[xlix] to follow, as well as benefiting from improved connectivity as a result of HS2. Cardiff is also the worst rail connected major city *Figure 15* in the UK[li] in respect of direct services to other major UK cities.

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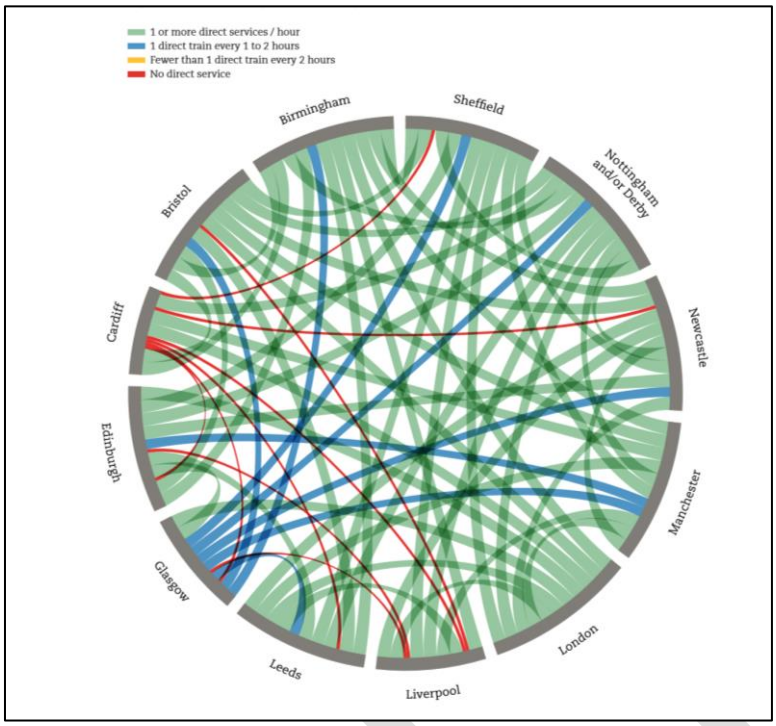

Figure 15 Cardiff rail connectivity vs major UK cities (Greengauge 21, Beyond HS2, May 2018)

Demographics and impact on transit choices

In delivering transit, it is generally acknowledged that any system works most efficiently and can offer more attractive services, when it is segregated from other modes, especially cars and to a lesser extent, pedestrians and cyclists. So dedicated rail, heavy rail (HR) or light rail (LR), and/or Bus Rapid Transit (BRT) on segregated alignments is most optimal. Having to operate in "mixed traffic" (esp. cars) impacts journey times and reliability. This adds costs through having to operate more vehicles (so more staff and opex) to maintain frequency of services, which are also less reliable and slower supressing demand and fare revenues. In short, the ability to operate faster reduces opex and increases demand.

Academic data (*examples* [lii] [liii] [liv]) also indicates that fixed segregated public transit, typically needs a minimum population of 200,000, a density 22 people per hectare (pph), and a planning system that encourages employment as well as residential development along transit corridors; especially within 800m of transit stops.

The combined Cardiff, Newport, Pontypridd, Merthyr, Urban area (*using ONS BUA definitions*) population is nearly 900,000; a total population comparable with Tyneside, Liverpool and with (certainly as regards Cardiff) a pph higher than many other places in the UK. This suggest that along any defined transit corridor, the built-up areas of Newport and Cardiff and the core valleys, can support fixed segregated systems. In fact, the physical geography of the South Wales valleys north of Cardiff and Newport and their dense population makes them perhaps one of the most suitable parts of the UK for fixed segregated PT. In many cases the limiting factor is not the potential demand, but the capital costs required to deliver a "new system". That is why relatively small investments that enable greater utilisation of existing infrastructure (see below) is so effective; this includes new links, new stations and measures to address bottlenecks.

In areas with sufficient density the choice of Bus, Bus Rapid Transit (BRT), Light Rail (LR), Heavy Rail) is then in general terms determined by the local demand and long term revenue and operating profile of the system as well as the initial capital costs(which are often a barrier for fixed segregated systems – especially rail). The biggest component of operational costs relates to numbers of vehicles and staff required to move a fixed number of people. As an example, it is operationally more efficient to move 1000 people an hour between two points in 2 or 3 trains (of

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300/400 people) or 4 Light Rail Vehicles (of 200~250 people) instead of say 12 or 13 buses (of 70~80 people). At 100~200 an hour then perhaps 3 or 4 buses works best, remembering that a frequency of 4 services an hour is generally regarded as the minimum required to deliver a "turn up and go" services able to attract most passengers.

So, the bigger the demand then fixed segregated rail (HR and LR) solutions are most efficient *Figure 16*, for lower demand then local bus services can be most efficient; segregated BRT sits in the middle. For much shorter journeys of up to 5Km then Active Travel is best.

For example, the demographics and potential demand around the City and Coryton lines in Cardiff indicate that these could support rail services of at least 4tph (vs the 2tph now). There is also a role for segregated bus services and some comprehensive Bus Rapid Transit (BRT) across parts of urban Newport and Cardiff where rail capital costs for new build maybe prohibitive. Similarly, segregated bus can play a role across the urban valleys where redesigned bus networks can be developed to integrate with rail services. Outside the core urban areas, the opportunity is via development of and integration with local bus services. For areas of low density and more variable demand then Demand Responsive Transit (like Fflecsi) may be most suitable.

In all cases quantitative demand analysis will be required to inform decisions.

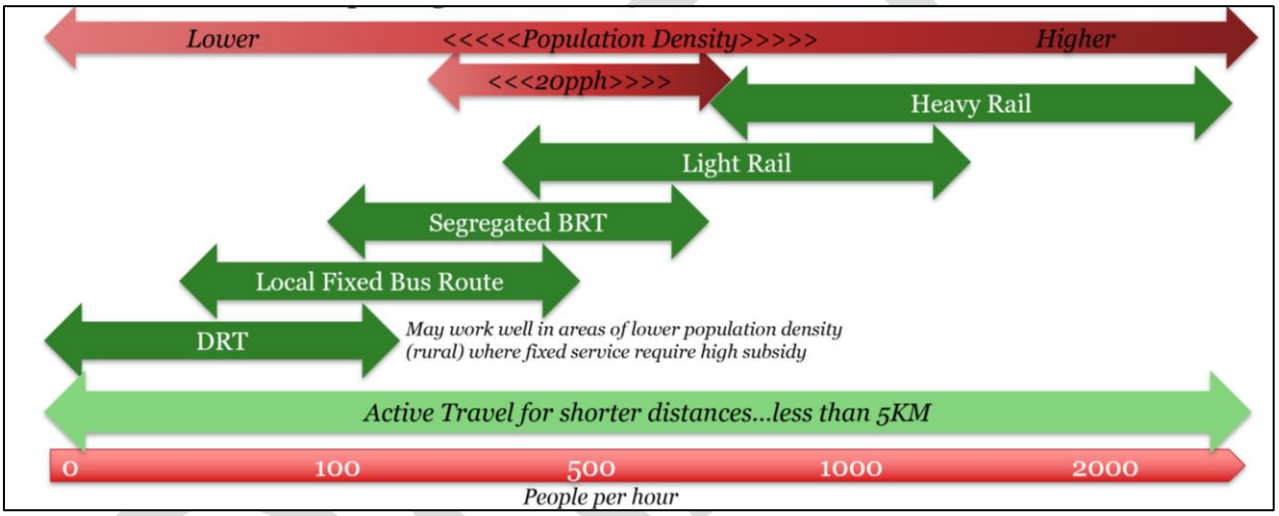

Figure 16 Illustration of most suitable of modes Vs demand and density

Networks and Interchange

One of the legacies of the deregulation of the bus industry in the 1980s, is the fragmentation of networks and operations. Outside London there is no sense of a single public transport system anywhere in the UK. This has implications and overall adds to operating costs of PT. This is because each network operator is only concerned about the design, operation and costs of one network. There is often little or no regard for all the other operators – even when they share the same geography. This overall adds to opex whilst at the same time delivering a suboptimal service - esp. to the 80% who typically don't use public transport.

The opportunity for the CCR is to develop a "single integrated network". This has implications for network design. Rather than each network trying to operate direct services to/from a single hub, we instead design an integrated "grid" of services[lv]. With higher quality interchanges and importantly faster services of sufficient frequency, it is possible to deliver more coverage and enhanced services levels at lower cost (from reduced vehicle miles) than a series of more fragmented, unconnected networks based around single hubs.

On that basis the role of several proposed stations is not to just provide local Origin/Destination demand, but also to provide an interchange between different rail and bus services to help deliver a much more efficient and attractive "grid" of services.

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Best service & no interchange; most vehicle miles & highest opex	*Good service with interchange; Optimal opex?*	*Good service but some longer trips with interchange; Lowest opex*

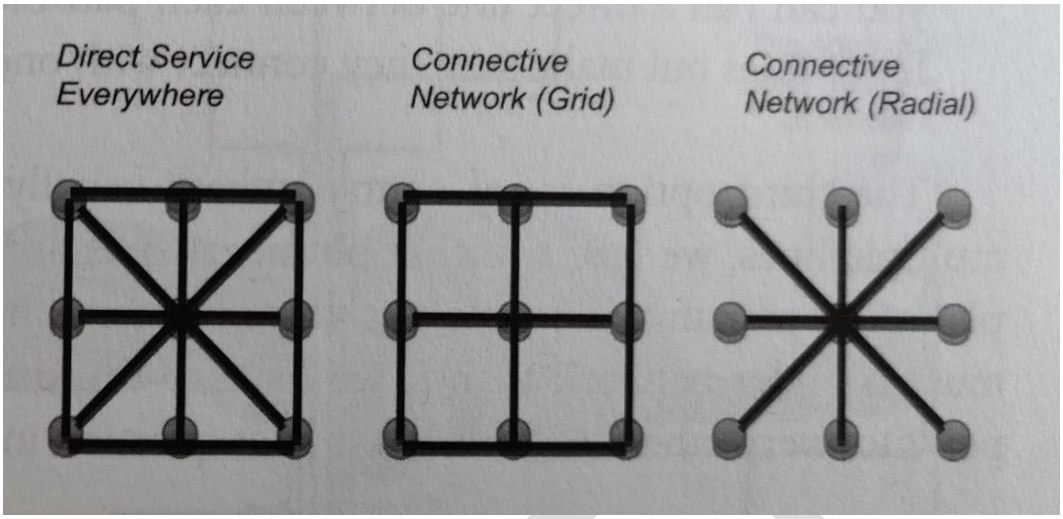

Figure 17 From Human Transit by Jarrett Walker, Grids vs Direct Services

Making Better Use of Existing Rail Assets

There is a unique opportunity to make much better use of existing and underutilised rail infrastructure across the region. Even after the current contracted phase of Metro is delivered only 2tph are proposed for the Ebbw Valley line, City Line and Coryton Lines, 1tph for the Maesteg Lines and there are some freight only lines with no passenger services – most notably beyond Ystrad Mynach to Nelson/Treharris, the Machen freight line and across Cardiff docks. There are also some key rail bottlenecks which impact the desire for more services – most notable are the Ebbw Valley junction with the SWML, Cardiff West (which is a constraint on more service to the VoG from east of Cardiff) and the two track section of the SWML between Cardiff and Bridgend.

By enhancing and better utilising the various under-used rail lines and addressing the known bottlenecks there is an opportunity to deliver a high quality, high capacity urban transit network across much of the region – some of these using the tram-train capability being developed for the Taff Vale Lines.

The introduction of tram-train LRVs *Figure 18* and their ability to operate on tighter radii, steeper elevations and to tramway standards, presents a range of new and/or reopening schemes that just would not be possible using traditional HR. The capital costs of such are also likely to be significantly lower than an equivalent "new build".

This is the kind of approach adopted in developing most of the UKs modern LR systems – they were all predominantly based on the use of existing and underutilised rail infrastructure.

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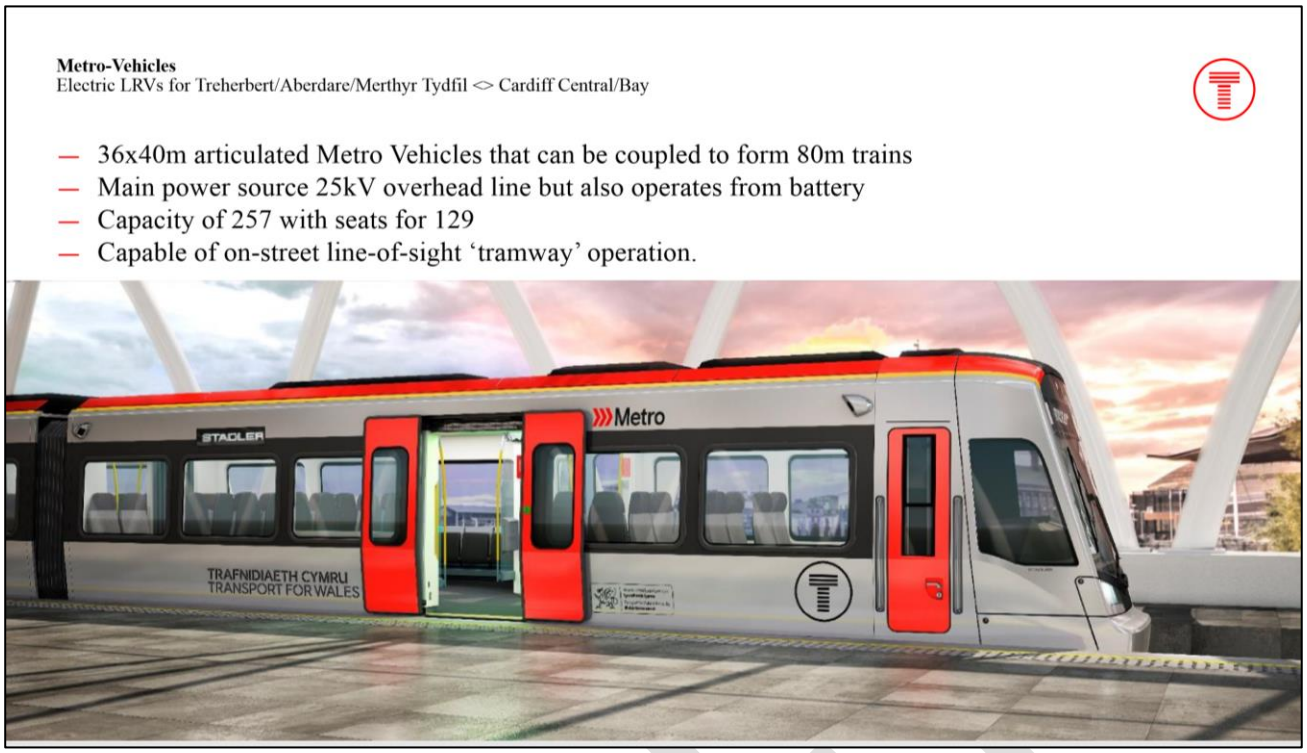

Figure 18 City Link Light Rail Tram-train "Metro Vehicles"

Transit Oriented Development Opportunities

One of the major contributory factors to more cars use and the induced demand for more road space has been the development of homes, offices, hospitals, etc in locations across the region which can only be accessed by car. For example, Newport city centre has been impacted by Celtic Springs, Imperial Park, Langstone, Spytty Park, ICC and Llanfrechfa Grange Hospital.

Metro presents an opportunity, and a need, to encourage and enable more jobs, leisure, educational and public services to be re-located away from car based (and often out of town) locations, to places with good public transport accessibility; especially our town and city centres - so called "Transit-Oriented Development" (TOD). These are key considerations in the new Wales Transport Strategy, which is in development, and the National Development Framework. Post Covid there is also an opportunity to explore the development of more town/community focussed shared workspaces right across the region – in a model originally championed by Indycube.

For example, in Newport the opportunity to work with UK Gov to relocate the ONS and Patent Office to Newport City Centre should be key (cf HMRC Hub and BBC in Cardiff). These facilities, even with a smaller footprint through more flexible working, would then be much easier to access using public transport from across the region, whilst at the same time helping to regenerate Newport City Centre.

There is also a need for a more coherent and strategic effort to develop and implement a wider range of station focussed economic development and regeneration initiatives right across the Cardiff Capital Region. These will complement the delivery and operation of the Metro by TfW and range from major property led schemes like Metro Central, Central Quay, Cardiff Parkway; city/town centre regeneration in Newport, Pontypridd, Bridgend and Merthyr to more locally focused and community based interventions in places like Porth, Butetown and Maesteg.

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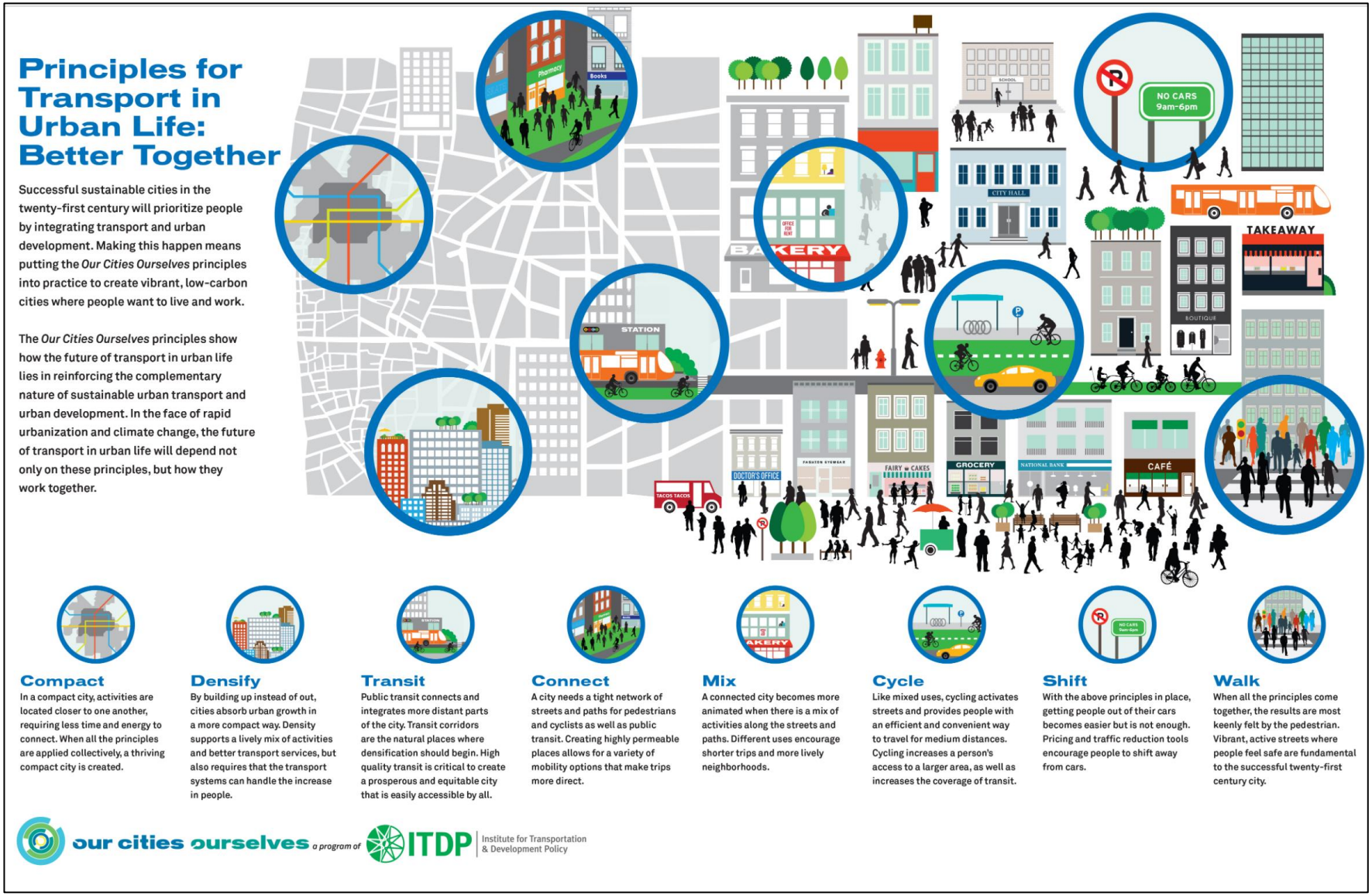

Figure 19 TOD principles from Institute of Transportation & Development Policy, USA[lvi]

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Figure 20 illustration by L Sorvala at TOD Charrette organised by CU, CCR, DCFW in 2019

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Post Covid & Flexible Working

Covid will clearly impact future transport planning. However, even with more local and home working, it is expected that post Covid there will still be a need for more public transport given the very high levels of pre-Covid car use (~80% commuting mode share).

The adoption of more flexible working presents an opportunity to reduce the "peakiness" of public transport demand. Converting the better allocation of work across most employees into a more even demand profile on transport systems, can help address one the biggest issues facing transport operators and governments in supporting and subsidising public transport. That is the stark reality that transport services and infrastructure are typically designed to support demand that is generally in one direction for 2-3 hours, twice a day; often much of the rest of the time trains and buses are moving around with low loadings. The same applies to the road network with most congestion occurring in the morning and evening peaks.

Road User Charging

There is clearly much more discussion to be undertaken before any form of equitable road user charging can be implemented across the region. However, these discussions are necessary if we are going to develop and deliver the transport infrastructure required to support the mode shift required and to help deliver our collective climate emergency obligations. This needs to be an informed debate and one which acknowledges the real issues and data to help make informed choices.

For example, academic evidence indicates that building more road space typically generates more traffic and that many of the costs of car use are external and not adequately appraised. The work of people like Todd Litman[lvii] and Jarrett Walker[lviii] and even the DfT's own analysis of induced demand[lix] demonstrate this phenomenon.

So, car users, have effectively been given a discount to drive as there are real external costs that have not been properly apportioned – maybe as much as 30%. This has resulted in sprawl with car-based housing and employment sites that generate an even greater demand for road space, damaging our urban realm and impacting air quality. The executive summary of Transport Costs and Benefits by the Victoria Transport Policy Institute is a good guide[lx].

Another major external cost, and something society has become desensitised to, is that in the UK, there are about 5 deaths on average each day (1700 per year) on the UK's roads[lxi]; this is in addition to 24,000 serious injuries and 160,000 road traffic incidents. There are also significant air quality and health impacts that are only now being fully appreciated[lxii] which leads to even more deaths – perhaps as many as 20,000 premature deaths each year.

This is on top of the carbon emissions resulting from car use[lxiii]. Even with EVs, the current usage of cars will still result in significant amounts of carbon dioxide being issued into the atmosphere.

A "charge" provides a means to more fairly apportion the long-term external costs of car use to the user instead of the taxpayer. Any revenues secured can also be used to contribute to a major capital programme such as proposed here.

High Speed 2 & UK Government Rail Investment in Wales

It has been noted in earlier Welsh Government reports, papers and statements[lxiv] that there are issues related to the devolution settlement as it impacts rail infrastructure investment in Wales. The data is clear, Wales' rail network has been significantly and systematically, underfunded in terms of enhancement vs the network elsewhere in the UK for decades. WG have estimated an underspend for the period 2001-2029 of the order of £3Bn.

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This is important, as enhancements improve the capability, capacity, reliability of the rail network. So, the limited share of such investment in Wales, over a prolonged period, has led to relatively less attractive services, attracting fewer passengers leading to lower modal share and higher subsidies vs the rest of the UK. *This is different from the Operations, Maintenance and Renewal Spend (OMR) which is about maintaining the network's current capability and reliability*

One of the implications of the lopsided devolution settlement is that HS2 (which does deliver much needed rail capacity for England) is a project that in effect is partly "funded by Welsh tax payers" but as set out in the DfT's own analysis has a significant disbenefits[lxv] for South Wales. Whilst the UK economy is predicted to receive a £15Bn[lxvi] benefit, South Wales' GDP will lose an estimated £200M a year; there are similar negative impacts for SW England with Bristol losing £100M pa, and Gloucester, Bath and NE Somerset another £100M.

Whilst we will work constructively with UK Government, the CCR is fully supportive of WG efforts to achieve a fully and fairly devolved settlement for the funding and discharge of powers over rail infrastructure and enhancements.

South East Wales Transport Commission

Earlier this year Lord Burns (who is leading the South East Wales Transport Commission) published his emerging conclusions[lxvii]. There is significant overlap between those emerging findings and the proposals which both the Welsh Government and the Cardiff Capital Region wishes to pursue. It is worth restating some of the key finding from Lord Burns' executive summary:

> *Congestion on the M4 is largely a peak-hours problem, predominantly associated with commuting.*
>
> *The M4 is largely used for regional, medium-distance travel, with many trips starting or ending in the cities of Cardiff, Newport and Bristol.*
>
> *Many people do not have good transport alternatives to the motorway.*
>
> *All of the rail, bus and active travel networks are offering insufficient services.*
>
> *Land use decisions with respect to homes, offices and retail parks have contributed to congestion and, on the current trajectory, this looks set to continue.*
>
> *If we are to alleviate congestion, we need to create attractive and viable alternatives for people. Until these exist, it is very difficult to solve the problem sustainably.*
>
> *The COVID-19 epidemic has radically changed the situation – the question is for how long.*
>
> *In the long term, a substantive and sustained increase in remote working could have a meaningful impact on reducing traffic. However, our view remains that in order to function efficiently, the region requires additional, non-car transport options*

Three key facets of a response set out by the commission that complement CCR emerging proposals, are:

- The development of a public transport grid across South East Wales with a mix of integrated express rail, local rail and bus services which is consistent with the commission's "network of alternatives".
- Demand management measures, including road charging (to more fairly apportion the significant external costs of car use: carbon emissions, road accidents, air quality and urban sprawl based induced demand)
- Planning policy and especially land use decisions to encourage and incentivise more transit-oriented development.

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Priority Rail Enhancements for CCR

Building on what Welsh Government and Transport for Wales are already delivering, there are a range of schemes in CCR that have been, or will be, subject to initial development by WG, TfW and/or local authorities. These all focus on the need to deliver more rail capacity, shorter journeys, more service, more stations and integration with bus and active travel. The primary drivers are to enable more efficient labour markets, support sustainable economic development, our collective need to address the climate emergency and to provide more sustainable mobility choices. Post Covid the opportunity to support the economy through infrastructure development is also a key consideration.

Wales Transport Strategy

The Wales Transport Strategy, whilst still in development, sets out a vision for transport which will be reflected in proposals for the CCR:

An effective, affordable and accessible transport system that is good for the economy, good for individuals and communities, good for the environment and good for Wales.

The Wales Transport Strategy also sets out a "transport planning hierarchy" which gives priority to meeting the demand for travel by walking, cycling and public transport ahead of private motor vehicles.

Figure 21 Wales Transport Strategy - Transport Hierarchy

The WTS sets out the focus of the transport investment hierarchy *Figure 21* will be to:

- Reduce the need to travel unsustainably (or at all), by adopting measures and policies that bring services closer to people.
- Widen and promote more sustainable travel choices; and
- Make better use of the existing transport network, ensuring new transport infrastructure is planned alongside other infrastructure so that people and their communities are properly connected.

Emerging Objectives for the Development or Rail services in CCR

By drawing upon the WTS, recent work and publications from Welsh Government and other Metro projects in Wales, the following vision and objectives have been drafted. These will be refined through TfW's Strategic Programme and Outline Business Case Development.

A strategic public transport network for the Cardiff Capital Region providing a high-quality, reliable, efficient and affordable transport services to support sustainable economic development and social regeneration.

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Economic & Transport

- Improve connectivity, linking communities with all major commercial, social and, health and leisure attractors across the region, enabling the region to function as a single coherent economic entity.
- Act as a catalyst for sustainable economic growth and development across the region by ensuring all major new development sites are linked by metro services at the outset to embed sustainable travel choices.
- Provide comparable journey times across public and private transport modes, with at least 4 services per hour on all routes to offer a realistic travel choice.
- Provide reliable public transport services, resilient to climate change
- Integrate with the national rail, local bus and active travel networks at key nodes

- Social
  - Improve accessibility to public transport
  - Encourage active travel and social inclusion initiatives.
  - Ensure metro services are accessible by all
  - Increase range of journeys that can be made by public transport
  - Provide mobility options that improve people's health
- Environment & Culture
  - Cater for increasing demand for public transport as part of a strategy to increase the public transport mode share
  - Reduce the impact of transport on the environment by making better use of existing transport infrastructure.
  - Support Welsh language and culture
  - Enhance the built environment through high quality placemaking design
  - Develop plans that support biodiversity and enablement of green infrastructure
- Financial (Affordability) & Management (Delivery)
  - A financially sustainable metro system
  - Services (rail and bus) planned and integrated across the wider Cardiff Metro infrastructure programme
  - Flexibility to adapt, grow and deliver new services as capacity and infrastructure become available

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Priority Schemes for CCR

The emerging rail proposal *Figure 23* are in the main, focussed on enhancing and/or better utilising existing rail infrastructure. There is only one substantive new alignment, the NW corridor; most benefits can be achieved from incremental measures that delver minor extensions, short new connections and by addressing network bottlenecks.

In that context, given the work to date and the emerging vision and objectives, the primary proposals that have been subject to initial strategic development and merit further scheme and option development through Outline Business Cases (OBC), include:

Enhance South Wales Mainline and route to Birmingham

To bring the ***South Wales Main Line (SWML***) ***(#1)*** up to the same standard as the other "main lines" across the UK, requires a major upgrade in terms of line speed, capacity, and electrification and importantly to allow a mix of express and local commuter services. This is essential to enable delivery of the Welsh Government's journey time and economic ambitions and to integrate with the UK Government's Western Gateway ambitions in south west England[lxviii]. It will also help maximise the benefits of the investment in the Core Valley Lines which is now the responsibly of the Welsh Government. Key requirements include:

- Additional London and Bristol Temple Meads services to Cardiff, Swansea, and West Wales
- New SWML/Relief Line local services and stations/interchanges including: Magor, Llanwern, Cardiff Parkway, Rover Way/Newport Rd, M4 Junction 34
- The Welsh Government has also set out some journey time ambitions which are endorsed by the CCR
    - London-Cardiff 85 minutes
    - Cardiff - Swansea 30 minutes,
    - Cardiff - Bristol Temple Meads 30 minutes
    - Carmarthen-Cardiff 75 minutes.
- The region also wishes to emphasise the importance of ***connectivity to Birmingham (#2)*** via Gloucester and the north of Wales and England via Abergavenny. Both these lines require line speed and capacity upgrade and full electrification as acknowledged in NRs recent decarbonisation strategy[lxix].

All along this corridor there are significant development opportunities that will be influenced by these proposals; for example: Cardiff Parkway, Bridgend, Newport, Cardiff City Centre.

Address frequency constraints and bottlenecks on existing network

Contributing to the limitations of services on the existing network are a number of "network bottlenecks" that need addressing. These include Cardiff West, Ebbw junction and the 2-track SWML section between Cardiff and Bridgend.

- Measures to address constraints at ***Cardiff West*** will, aside from being essential to the Cardiff Crossrail proposal, also enable more services (inc. from east of Cardiff) to operate onto the ***Vale of Glamorgan (VoG) Line to Barry and the Airport (#3)***. This may bolster the case for further stations to better serve Cardiff airport and St Athan.
- Informed by the development work undertaken, significant investment is required to deliver 4tph Metro frequencies on the ***Ebbw Valley(#4)*** corridor (as is the case with the CVL) with additional stations (e.g. Crumlin and Newport West) and services to both Newport and Cardiff, and ***a spur to Abertillery (#5)***.

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Delivering enhanced connectivity from the Ebbw Valley, which is facing significant economic challenges, to both Cardiff and especially Newport will help support further development and regeneration in and around Ebbw Vale itself.

- There are also network constraints impacting the ability to increase services on the ***Maesteg branch (#6)*** to more than 1tph, and the City and Coryton Lines in Cardiff which are operating at 2tph.
- The region also needs the introduction of metro frequency services on the ***Marches line (#7)*** as far as Abergavenny, with further new stations at places like Caerleon where demand justifies. This is important for place like Pontypool which, like Ebbw Vale, is dealing with some serious economic challenges. More commuter services to Pontypool and Abergavenny and new stations will also help provide sustainable travel options to new developments like Mamhilad urban village and Sebastopol.

Further CVL stations

Whilst the CVL transformation will deliver radically improved services to the Taff Vale and Rhymney Valley Lines, and additional stations (such as Crwys Rd and the new bay line stations) there are still opportunities for further enhancement via new/relocated stations and Park and Ride (P&R) sites. At this stage these include:

- Confirmation that stations that were to be funded out of revenue on the CVL will progress (Nantgarw, Gabalfa)
- Llanbradach P&R (this could require a relocated station)
- Upper Boat P&R
- Pentrebach P&R (this could require a relocation of the station)
- Nantgarw (relocated from Trefforest Ind Estate)
- Pontypridd Bus Station
- Abercanaid (depending on proposals for Pentrebach)

Cardiff stations are included under Crossrail

Strategic Schemes

Most of the proposals set out are focussed on making better use of, and enhancing, existing rail services. There are though, some significant proposal that merit further ongoing development that both make better use of underutilised rail assets as well as requiring new infrastructure. These could form the substance of 10-15 year expansion plan for Metro tram-train services.

- ***Cardiff Crossrail and NW Corridor (#8)***

  The ***Cardiff Crossrail*** programme will upgrade and connect existing underutilised rail assets to enable 4tph on all the rail lines in Cardiff and connect the largest and most densely populated parts of the region at a much lower cost than a new build system.

  This will include the ***Coryton and City Lines*** and a link between the Bay line and Tidal Sidings to Rover Way/Newport Rd. The full extent of Crossrail extends west via the ***NW Corridor to Rhondda Cynon Taf*** (RCT) and a potential interchange with the SWML at Pontyclun with stations serving new housing at Plas Dwr, M4 J33, Creigiau and Talbot Green. It will also ***connect the City Line to Radyr*** to enable “circle” connectivity; with tram-trains likely operating west from Heath Halt Lower.

  The introduction of new stations at places like Rover Way/Newport Rd, Ely Mill, Roath Park, Gabalfa and Crwys Rd, Butetown and across the bay, will provide much of the city access

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to high quality and frequent public transport services that integrate with SWML as well as connecting a number of major mixed used and/or brown field developments (e.g. Cardiff Bay, Arena, Parkway, Plas Dwr, GE Life Science Hub). The route will also connect Splott and Tremorfa to the Metro, areas within the top 10% of Welsh Index of Multiple Deprivations (WIMD)[lxx].

Subject to further analysis, Crossrail could also be extended east from Rover Way/Newport Rd with ***tram-trains operating on the relief lines to Cardiff Parkway, Newport or even Severn Tunnel Junction or Chepstow***. This presents an opportunity to deliver more rail capacity on the SWML Corridor by avoiding the network constraints through Cardiff Central and to the west.

There is also a longer-term opportunity, very much linked to land use changes and which should be assessed via the regional SDP, to ***extend NW Corridor tram-train operations from Pontyclun, west toward Bridgend.*** Some of this route could run adjacent to the current SWML and then divert via the potential major housing and mixed-use development at Llanlid. This may also allow some local stations to be relocated to the new "route" to free up capacity on the SWML.

There is also potential to operate ***tram-trains to Penarth*** and a ***extend the network to Lower Penarth*** once the issues are Cardiff West are addressed.

- ***Cross Mid Valley Connection (#9)***

  Metro presents a strategic opportunity for the region to begin to radically transform its economic geography. This means developing a transport network not overly focussed on journeys to/from Cardiff. Whilst that will always be important, the opportunity to better connect all parts of the region and especially key centres like Pontypridd, Newport, Merthyr is vital. On that basis the long-standing need to better connect E-W across the valleys is a primary consideration. The primary corridor extends from Cwmbran/Pontypool to Newbridge, Blackwood and Ystrad Mynach on to Nelson, Pontypridd and via Church Village to Talbot Green/Pontyclun. This route could connect over 200,000 people. At key points this E-W route will interchange with N-S metro rail services.

  On that basis and enabled by the tram-train technology being developed on the CVL, is the opportunity to explore ***a direct tram-train connection between The Rhondda and Ystrad Mynach or Hengoed via Pontypridd.*** This may only require a short 2km section between the TVL near Quakers Yard to the Cwmbargoed freight line near Trelewis. This can include measures to re-open the Pontypridd north curve and introduce metro rail station at Pontypridd bus station.

  Whilst there are more ambitious longer-term options to extend tram-train further east (to Blackwood for example), this key core component when combined with integrated bus measures to Blackwood, Newbridge and Pontypool/Cwmbran in the east, and via Church Village to Pontyclun and Talbot Green in the west can deliver an attractive and reliable cross valley public transport service.

- ***Caerphilly to Newport (#10)***

  Proposals to ***re-use and extend the Machen freight line*** have been proposed in the past (inc. by SEWTA). But issues and constraints associated with HR, especially the route into Caerphilly and main line constraints on the SWML into Newport, make a traditional Heavy Rail (HR) approach more difficult to deliver.

  Again the potential to use tram train to connect Caerphilly to Newport can be revisited; this time with a ***short "on-street" tram-train section in Newport*** via a flyover of the SWML

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near Cardiff road and a route via the Royal Gwent Hospital and the city centre to avoid compromising limited capacity on the SWML.

As with Llanilid this scheme will likely need to be developed alongside a review of land use and the potential for future housing along the corridor between Bassaleg and Caerphilly. This is something that should be explored in the upcoming SDP for the region.

- ***Aberdare – Hirwaun (#11)***

  This scheme is already in development. Aside from extending Metro tram-train services to Hirwaun it can proved a major P&R and Bus interchange on the A465 HoV rd. The extension will also enhance the impact of the proposed developments, new housing and the energy park in the area. A new station can also be considered at Trecynon.

Key schemes outside the region

Whilst not the responsibility of the region, there are some emerging proposals across the UK that the region supports, for example:

- Enhance HS2 connections in Birmingham to allow classic compatible services to operate form the northern branches of HS2 south west from Birmingham to Cardiff and Bristol as proposed by Greengauge 21[lxxi]
- The Western Rail Access to Heathrow[lxxii] has already been highlighted by the region as a means to improve sustainable surface access to Heathrow airport and is already in development via Network Rail.
- Complementary Metro development in Bristol and Swansea Bay.

  To reduce overall need for car use within the CCR will also requires as many origin and destination points in the adjacent regions of Bristol and Swansea to be accessible via attractive public transport services for trips to/from the CCR. CCR therefore supports the development of complementary Metros in Bristol and Swansea Bay *Figure 22* . This connected metro concept was presented by the Cardiff Business Partnership in its evidence to Westminster's Transport Committee review of HSR in 2011[lxxiii].

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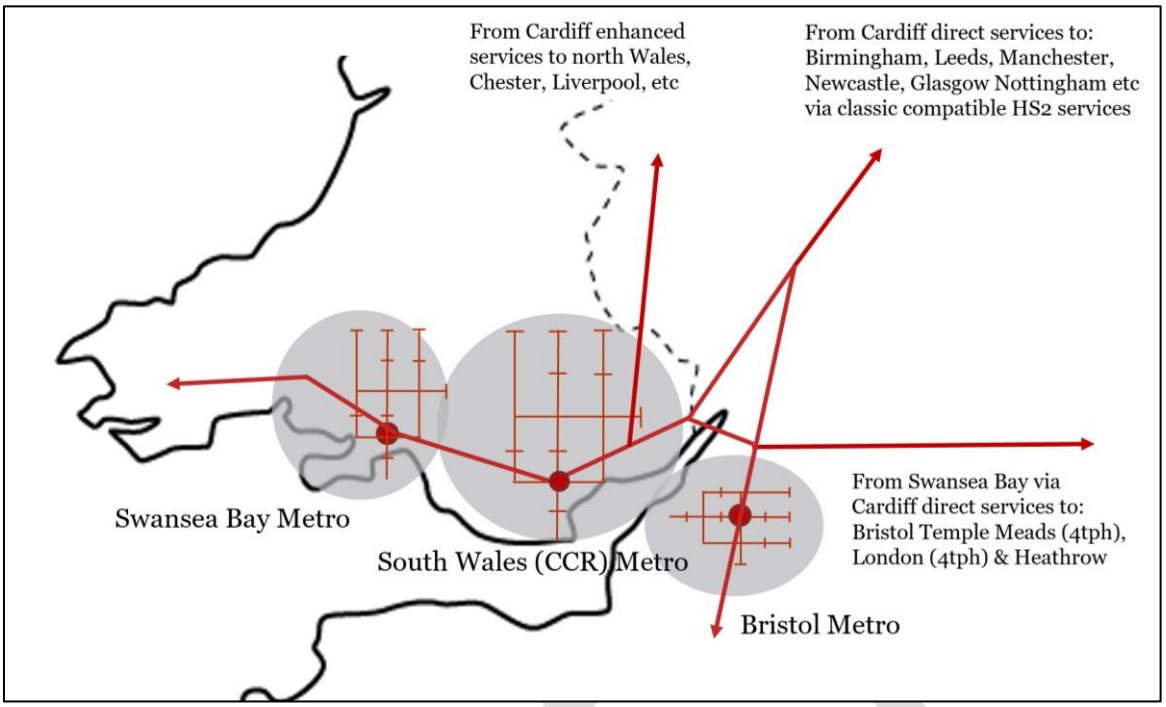

Figure 22 Integrated Metros in Bristol, Swansea Bay & CCR (South Wales Metro)

The supporting role of Integrated Bus Services

Whilst this paper is focusing on the priority strategic rail schemes, there is an equally important and parallel effort required to develop vastly improved bus services – especially for local bus services and areas where strategic connections cannot be affordably delivered via rail. This will most likely include BRT in Cardiff and Newport, and some or all of the cross-valley connections required across the mid and upper valleys and rural areas of Monmouthshire, VoG and Bridgend.

Working with TfW and WG, the CCR will

- Redesign bus networks to fully integrate with rail services, including development of segregated BRT routes where appropriate (likely to be in urban Newport and Cardiff)
- Further test and apply innovative solution like Demand Responsive Transit (e.g. Fflecsi[lxxiv]) as part of the overall public transport offer
- Deliver integrated fares ticketing and information systems and common user platforms in terms of app and web systems

Whilst further analysis is required, there would appear to be four natural sub regional areas *Figure 23 (*that do overlap in part), that could be the focus of bus network & service interventions. These are, with potential bus hubs identified:

- Cardiff and the Vale of Glamorgan
    - Hubs: Cardiff Central, Waungron Rd, Heath Hospital, Bay/Arena, Queen St, Rover Way, Newport Rd, Barry Town, Barry Docks, Pontyclun
- Newport, Torfaen, Blaenau Gwent and Monmouthshire
    - Hubs: Newport, Cwmbran, Pontypool, Abergavenny, Monmouth, Newbridge, Ebbw Vale, Llanfrechfa Grange Hospital, ICC
- Bridgend
    - Hubs: Bridgend, Porthcawl
- Mid and Upper Valleys (parts of RCT, Merthyr, Caerphilly, Blaenau Gwent and Torfaen)

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- Hubs: Merthyr, Aberdare, Pontypridd, Bargoed, Blackwood, Newbridge, Porth, Ebbw Vale, Ystrad Mynach, Abercynon

The delivery of integrated bus services is perhaps a more challenging problem than new rail services and infrastructure given the complexity of the bus industry and its legislative framework. However, this where the most benefits can be delivered in the next 5 years.

Active Travel

The role and importance of Active Travel cannot be understated. In many of our urban areas across the region there is a major opportunity to deliver infrastructure that will encourage more and safer walking and cycling instead of car trips. For longer journeys, which many of us have to make, the contribution of Active travel for the first and last miles of journey has to be encouraged. To do so, we need to develop and introduce measures that make all our stations accessible from their local communities using Active Travel. This will include safer walkways, cycle routes, safe accessible stations and secure cycle storage at stations. In many cases and outside the station boundary, this work will fall to the CCR and the regions local authorities and not TfW to deliver – as is the case with the developing cycle network in Cardiff.

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Key Interventions Summary (Map)

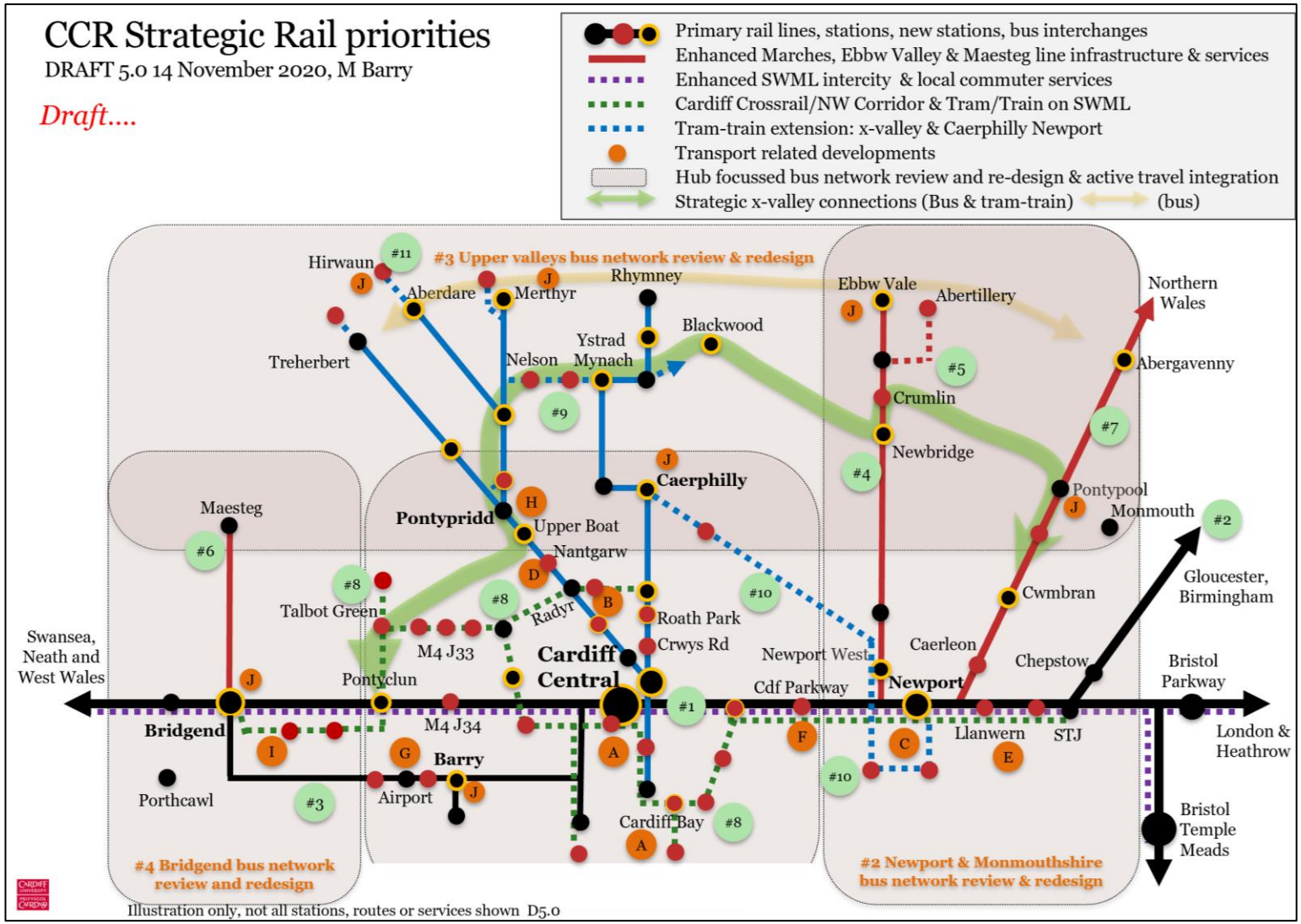

Figure 23 CCR Strategic Rail Priorities

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Key Interventions Summary (Schemes)

Priority Rail Schemes
#1 South Wales Main Line (SWML) Upgrade
#2 Route and service upgrade to Birmingham
#3 VoG service enhancements
#4 Ebbw Valley service enhancements
#5 Abertillery spur
#6 Maesteg line service enhancements
#7 Marches line service enhancements
#8 Cardiff Crossrail & NW Corridor tram-train - City and Coryton link and service upgrade - Bay line extension to Rover Way - Tram-train on SWML to Newport/STJ - NW Corridor to Pontyclun - Extend tram-train west from Pontyclun - Extend tram-train to Penarth and lower Penarth
#9 Mid-valley tram-train connection - Tram-train from Rhondda to Ystrad Mynach via Pontypridd, Abercynon and Nelson - New Stations at: Pontypridd bus station, Nelson, Tredomen Business Park
#10 Caerphilly-Newport tram-train - Re-use and extend Machen freight bracnhg to Caerphilly - On street "tramway section" over SWML and via Royal Gwent
#11 Aberdare-Hirwaun

<>

Economic Development Sites & Regeneration Opportunities
A Cardiff Central, Central Quay, Butetown and Cardiff Bay
B GE Life Science Innovation Park
C Newport Knowledge Quarter
D Nantgarw/Treforest Industrial Estate
E Llanwern/Glan Llyn
F Hendre Lakes/Cardiff Parkway
G Cardiff Airport/St Athan Business Park
H Development and regeneration in Pontypridd
I Llanilid
J Local Regeneration Opportunities

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Overall Strategic Benefits

Transport cannot exist in isolation of the wider economy, so the Welsh Government and TfW have identified a range of high-level benefits for the various Strategic Cases in development as they apply in the CCR they include:

Economic Benefits

- Enhanced connectivity between key economic centres on the SWML like Swansea, Cardiff and Bristol will help create more efficient labour markets; similar benefits can accrue to places like Pontypridd, Merthyr and Caerphilly through enhanced Metro connectivity. This is very much in keeping with the Welsh Government's desire to encourage regeneration and transport-oriented development and especially mixed use and housing development at/near stations across the network
- The Welsh Government have previously estimated Transport User Benefits of £1Bn are likely from enhancement to the SWML; a figure that is likely to be higher when the full range of schemes set out, and agglomeration and Wider Economic Benefits are included.

Environmental and Wellbeing Benefits

- Given the urgency required to address the climate emergency, these measures provide the radical increase in public transport capacity required to reduce currently very high levels of car use. Across Europe cars are the biggest contributor (even if all electric) to transport carbon emissions (~60%), which is the only sector that has increased its carbon footprint since 1990[lxxv]
- Reduced car use can also improve health outcomes from fewer road accidents (125,000 each year in the UK, 25,000 serious injuries and 1,700 fatalities[lxxvi]) and improved air quality to reduce the current estimated 30,000 premature deaths per year[lxxvii] caused by air pollution.

Transport System Benefits

- The proposals set out will deliver a more flexible and efficient railway, able to operate a mix of express and integrated local commuter services on the SWML integrated with local metro services from and across the valley
- Offering more attractive rail services to more people will significantly improve efficiency of rail operations and reduce subsidy per passenger

Transport led Economic Development & Regeneration Opportunities

Beyond those higher-level benefits, there are number of significant development opportunities and economic activities that are dependent on, or whose impact can be enhanced through improved rail services and connectivity. Some of these are part of the Cardiff Capital Region City Deal, they include:

- As part of the Cardiff Crossrail there are several major contingent developments. For example, at Cardiff Central/Central Quay(A) and Cardiff Bay(A) including more residential, hotel, commercial and a potential Higher Education Institute. A community focussed regeneration programme aligned to the bay line and a new Butetown station can also be considered. There is also the prospect at GE/Forest Farm for a Life Sciences Innovation Park(B) anchored by GE and the Wales Genomics Centre.

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- Delivering more commuter services into Newport City Centre from across the region will help support the development of the Newport Knowledge Quarter(C) with partners including Alacrity, Alacrity Cyber, USW Cyber school and Airbus. There is also an opportunity to consider the re-location of the UK Government's facilities (such as the Patent Office and ONS) to a location in Newport city centre.
- The schemes set out will enhance the accessibility of the Nantgarw/Treforest Industrial Estate(D) and help bring forward a major mixed use regeneration project including more residential; this augments the relocation of the Department of Work and Pensions (DWP) adjacent to the new Metro stations planned at Nantgarw.
- New SWML commuter services and a new station at Llanwern will connect Llanwern/Glan Llyn(E) residential development to the rest of the region and help bring forward further development sites near the station.
- The new station in development at Cardiff Parkway provides the opportunity for more "mixed use" development at Hendre Lakes(F)[lxxviii]; this site is at the heart of the corridor between Newport and Cardiff which is already a regional centre for Compound Semiconductors(CS)[lxxix] (inc. SPTS, Newport Wafer fab, IQE, Cardiff University)
- Enhanced connectivity to Cardiff Airport/St Athan(G) will help support a major centre for the development of lithium-ion battery and storage technologies for the automotive sector. British Volt at Bro Tathan has set out its intent to support up to 4,000 jobs supported by the UK Government's Department for Business Energy and Industrial Strategy (BEI)/ UK Battery Industrialisation Centre.
- The Metro is already enabling development in Pontypridd (H) and it is expected further development and regeneration opportunities will come forward in and around the town centre and potentially linked to further Metro measures (like cross valley and a new station at the bus station) into the late 2020s
- (I) Llanilid. As part of the emerging SDP there is the potential to explore a more substantive TOD base development between Pontyclun and Pencoed at Llanilid that could be delivered into the 2030s
- (J) Aside from these more substantive and developed proposals, the Metro also presents opportunities for further "transport hub" focussed development and regeneration measures in places like Barry Town, Ebbw Vale, Merthyr, Pontypool, Bridgend, Caerphilly and Hirwaun. In many cases this builds on work already in progress – such as Merthyr and Caerphilly.
- As has already been noted, many of the wider benefits that can be realised requires a more coherent and nuanced approach for smaller scale interventions; especially to enable more community focussed regeneration measures at many of the smaller stations across the region. CCR will work in partnership with WG, the region's local authorities and TfW to develop a portfolio of such interventions and in doing so align with WGs "Transforming Towns"[lxxx] initiative.

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Next Steps

- Subject to endorsement by the CCR and nascent RTA, this policy basis will be used to underpin further scheme and business case development of rail schemes by WG, TfW and the Region.
- To work with TfW to integrate these policy-based proposals into TfW's formal Strategic Metro Development Programmes; and to develop and bring forward additional capital funding mechanism to support the development of a 10-15 year implementation programme (the details, scope and phasing of which will be refined through the development of Programme Cases by TfW)
- To establish a more coordinated regional capability to develop and take forward complementary economic development & regeneration initiatives right across the Metro network. This will include substantive property development as well as more locally focussed community-based interventions.
- Working with WG and TfW the region needs to develop a comprehensive Metro focus Transit Oriented Development Plan. Working with key partners like Registered Social Landlords (RSLs), house builders, developers, regeneration practitioners and community groups, will be essential as will the support of bodies like Design Commission for Wales (DCFW)[lxxxi] and Community Housing Cymru (CHC)[lxxxii]
- To ensure that the regional Strategic Development Plan (SDP) proactively develops opportunities for more transit-oriented development. In the first instance the gradual relocation of public services and offices back to city and town centre locations right across the region. The role of placemaking[lxxxiii] will be embedded in our approach
- Work with WG to further develop proposal for road user charging
- To work with regional bodies in Swansea/West Wales and SW England to ensure these proposals complement those being developed in adjacent regions
- To support WG in making the case for rail devolution and funding for enhancement. It is likely that without substantive changes, most of the proposal set out will not proceed
- To support further academic research to underpin these proposals – esp. the wider benefits that may be realised.

DRAFT

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Prepared by Prof Mark Barry for the Cardiff Capital Region, November 2020

END NOTES….

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Future Generations Assessment Evaluation
(includes Equalities and Sustainability Impact Assessments)

Name of the Officer completing the evaluation:	**Please give a brief description of the aims of the proposal**
Clare Cameron **Phone no:** 07976 708539 **E-mail:** clare.cameron@cardiff.gov.uk	To update the remit of the RTA to enable it to provide a wider service to the Cardiff Capital Region over and above the service provided with the City Deal funding available.
Proposal: RTA A New Agenda for A New Future	**Date Future Generations Evaluation form completed:** 26 November 2020

1. **Does your proposal deliver any of the well-being goals below?** Please explain the impact (positive and negative) you expect, together with suggestions of how to mitigate negative impacts or better contribute to the goal.

Well Being Goal	Does the proposal contribute to this goal? Describe the positive and negative impacts.	What actions have been/will be taken to mitigate any negative impacts or better contribute to positive impacts?
A prosperous Wales Efficient use of resources, skilled, educated people, generates wealth, provides jobs	The RTA Programme and remit will have a slight to large positive impact on the strategic objectives contained within the Prosperity and Opportunity theme. In particular, the RTA programme will greatly assist in providing the right policies and infrastructure to improve connectivity by means of good transport links. As a whole, connectivity across the region will improve through implementation of the RTA programme and widening the remit of the RTA to enable it to be a truly strategic body will enable efficient use of regional resources through maximizing existing skills and resources. The RTA programmes will facilitate ease of access for communities across south east Wales, for those with and without access to a private car thereby improving connectivity to a range of services. RTA Programmes will improve connectivity to the South Wales Metro, permitting regional connectivity throughout south east Wales and beyond. The interventions will support a more productive economy through an increase in access to the South	This report seeks to address the actions needed to drive progress.

Well Being Goal	Does the proposal contribute to this goal? Describe the positive and negative impacts.	What actions have been/will be taken to mitigate any negative impacts or better contribute to positive impacts?
	Wales transport network. This will allow for individuals, households, public sector and business to grasp new opportunities, from the improved access provided by new and improved transport options. By strengthening the remit of the RTA, the programmes that come forward will improve access throughout the south east Wales region, will help increase the skills base of the labour market, by providing means of access to new educational, employment, healthcare and training opportunities. The RTA Programmes include investment across the whole of south east Wales it will improve the quality of the region as a whole and is likely to encourage new inward investment as businesses have access to a wide pool of potential resources that can easily travel around the region to access new job and training opportunities. The regional bus network and rail strategy clearly demonstrates a commitment to a sustainable future, with a focus on facilitating and promoting sustainable transport access.	
A resilient Wales Maintain and enhance biodiversity and ecosystems that support resilience and can adapt to change (e.g. climate change)	New infrastructure and enhancement of provision will open up journey alternatives for commuters, business users and leisure users. Instead of automatically undertaking a journey by car, the RTA bus and rail Programmes will encourage modal shift to public transport for a range of journey types. This could help to reduce the number of car journeys undertaken, helping to reduce congestion and improve other environmental factors such as an improvement in air quality and noise reduction from vehicles. The development of new transport schemes which can utilise new technologies such as electric	This activity will be driven up in future. In addition as physical infrastructure schemes enter delivery – more comprehensive assessments will need to be carried out in full. All future visions and schemes will consider any likely changes in need due to COVID 19.

Well Being Goal	Does the proposal contribute to this goal? Describe the positive and negative impacts.	What actions have been/will be taken to mitigate any negative impacts or better contribute to positive impacts?
	charging points and electric vehicles within its operation and design will also allow formation of new industries to supply these services. A report prepared by Cenex demonstrates the need for a Programme of Electric Vehicle Infrastructure within the Programme and has proposed the level of infrastructure likely to be required up to 2030. The delivery of the RTA programme will seek to expand on this provision for the region as a whole, which will help combat climate change.	
A healthier Wales People's physical and mental wellbeing is maximized and health impacts are understood	A potential reduction in car trips may make the roads safer, thus opening them up for more Active Travel journey opportunities. There is also likely to be growth in active travel journeys undertaken to interchanges Through the RTA bus and rail proposals. The potential to increase active travel journeys will have associated health benefits leading to cost savings across a range of health service provisions There can also be economic benefits for the region from increasing active travel. CCR is working with bus operators to provide better infrastructure that improves reliability and working in partnership to encourage operators to invest in newer buses, electric vehicles and providing better access to information, thus aiding positive improvements in air quality through ULEV vehicles and more reliable provision.	
A Wales of cohesive communities Communities are attractive, viable, safe and well connected	The RTA programme will greatly assist in providing infrastructure to improve connectivity by means of good transport links. The RTA Programmes will also improve connectivity to the South Wales Metro, permitting regional connectivity throughout south east Wales and beyond.	A greater contribution will be made to this by the aforementioned data capability, sectoral analysis and place assessments.

Well Being Goal	Does the proposal contribute to this goal? Describe the positive and negative impacts.	What actions have been/will be taken to mitigate any negative impacts or better contribute to positive impacts?
	The regional bus network proposals will lead to journey timesavings on the road network across southeast Wales helping businesses and promoting economic development. Journey time savings will also be achieved for users of the public transport network, as the RTA Programmes promote the co-locating of modes via seamless interchanges. A greater contribution will be made to this by the data capability, sectoral analysis and place assessments.	
A globally responsible Wales Taking account of impact on global well-being when considering local social, economic and environmental wellbeing	The RTA Programmes include investment across the whole of south east Wales and it will improve the quality of the region as a whole. Therefore, it is likely to encourage new inward investment as businesses have access to a wide pool of potential resources that can easily travel around the region and wider, to access new job and training opportunities. The RTA Programmes will sustain new connections, share good practice and secure propositions and deals that support economic growth. The Programmes includes ULEV infrastructure and business cases in association with ULEV provision and incentives will measure changes to greenhouse gases emitted as identified within the CCR ULEV Taxi Strategy and Regional Strategy for all modes.	Develop the legacy impact of the event, sustaining new connections, sharing great practice and potentially securing propositions and deals that support economic growth.
A Wales of vibrant culture and thriving Welsh language Culture, heritage and Welsh language are promoted and protected. People are encouraged to do sport, art and recreation	Extending the remit of the RTA to enable it to drive sustainable policies and deliver new and improved sustainable transport infrastructure across the Region will help increase the means of access to sport and recreation. All signage will be bilingual, and buses are already equipped with Audio Visual (AV) for those vehicles younger than 2012 to enable them to deliver bilingual messaging.	

Well Being Goal	Does the proposal contribute to this goal? Describe the positive and negative impacts.	What actions have been/will be taken to mitigate any negative impacts or better contribute to positive impacts?
A more equal Wales People can fulfil their potential no matter what their background or circumstances	Cardiff Capital Region is about delivering across 10 LAs and a population of 1.5m people. It is about economic gains – but importantly how this will convert as tools for improving people's lives. The RTA Programme will support a more productive economy through an increase in access to the South Wales transport network. This will allow for individuals, households, the public sector and businesses to grasp new opportunities, from better access provided by new and improved transport options. Transport improvements throughout the south east Wales region will help increase the skills base of the labour market, through providing means of access to new educational, employment, healthcare and training opportunities. The RTA Programmes will deliver direct transport improvements into those areas where evidence shows high rates of claiming job seekers allowance, allowing access to sustainable public transport for those seeking employment in wider employment markets. This will increase their personal prosperity and the economic prosperity of the area within which they live as they spend their income on local goods and services.	

2. How has your proposal embedded and prioritized the sustainable governance principles in its development?

Sustainable Development Principle	Does your proposal demonstrate you have met this principle? If yes, describe how. If not explain why.	Are there any additional actions to be taken to mitigate any negative impacts or better contribute to positive impacts?
Balancing short term need with long term and planning for the future	The RTA assists Government with delivering on the four Grand Challenges within the UK Industrial Strategy - Future of Mobility; Artificial Intelligence and Big Data; Clean Growth and Meeting the Needs of an Ageing Society. Focussing on a programme that addresses the provision and improvement of sustainable transport, helps in particular to achieve the goals of a 'globally responsible Wales', 'A Wales of cohesive communities', 'a healthier Wales' and 'a prosperous Wales'. The future RTA Programmes will provide increase network capacity, providing new and improved transport facilities, increasing capacity at interchanges across the rail network along with providing new capacity along transport corridors such as between Newport and Cardiff and the Abertillery to	
	Ebbw Valley Railway line. In developing the programme long terms trends have been analysed. For example, the need to provide for electric powered vehicles at all sites with the programme has been investigated. The RTA programme also looks to address future trends such as population increases and decreases, providing increased public transport capacity and helping to prevent out-migration from some communities through improved access.	
Working together with other partners to deliver objectives	The RTA has been formed through collaborative working by ten local authorities (Caerphilly CBC, Cardiff CC, Bridgend CBC, Newport CC, Vale of Glamorgan Council, Rhondda Cynon Taf CBC, Merthyr Tydfil CBC, Monmouthshire CC, Torfaen CBC and Blaenau Gwent CBC). The Well-being objectives of each of the local authorities have been and will be in the future, considered when developing the programme. The inclusion of EV Charging is also supported by WG and its climate change agenda.	Public consultation will take place through the preparation of a Regional Transport Plan, and for individual schemes, through the WelTAG process as each scheme develops through the WelTAG stages.

Sustainable Development Principle	Does your proposal demonstrate you have met this principle? If yes, describe how. If not explain why.	Are there any additional actions to be taken to mitigate any negative impacts or better contribute to positive impacts?
Involving those with an interest and seeking their views	The RTA has been formed through collaborative working by ten local authorities (Caerphilly CBC, Cardiff CC, Bridgend CBC, Newport CC, Vale of Glamorgan Council, Rhondda Cynon Taf CBC, Merthyr Tydfil CBC, Monmouthshire CC, Torfaen CBC and Blaenau Gwent CBC). The Well-being objectives of each of the local authorities have been considered when developing the programme.	More needs to be done to develop engagement platforms – beyond formal partnerships – to reach communities, hard to reach groups and those who currently have a limited understanding of Cardiff Capital Region. Improving social media, web presence and marketing materials will increasingly make a contribution to this. The RTA will ensure that all partners are included whilst delivering the Programme.
Putting resources into preventing problems occurring or getting worse	The RTA Programme is designed to prevent further environmental damage from transport through the promotion and development of a sustainable transport network. Population in some communities is projected to decline (such as some valleys communities, where younger members of the community leave to seek job opportunities in larger towns and cities). The RTA Programme linking into the wider Metro network will provide an effective transport system, connecting major towns and cities across Wales for those communities where population is declining. This may permit people to stay within the community within which they have grown up, commuting to and from employment as an efficient transport network is available, rather than needing to relocate to seek employment.	This will be an increasing focus of scheme and programme delivery and contribution to wider agendas.
Considering impact on all wellbeing goals together and on other bodies	The RTA Programme has been developed with consideration to a wide range of contextual factors. Strategic fit of the programme has been considered along with a number of other wider issues such as carbon reduction. In terms of the programme impact on local authority wellbeing goals, a positive impact can be seen.	

3. Are your proposals going to affect any people or groups of people with protected characteristics? Please explain the impact, the evidence you have used and any action you are taking below.

Protected Characteristics	Describe any positive impacts your proposal has on the protected characteristic	Describe any negative impacts your proposal has on the protected characteristic	What has been/will be done to mitigate any negative impacts or better contribute to positive impacts?
Age	The RTA Programme will help to achieve goals that aim to tackle poverty and deprivation, improve access to skills, improve employment opportunities and provide improved infrastructure and healthier communities for all characteristics as all infrastructure included within the projects will be designed in accordance with current inclusive design.	None arising at this time.	
Disability	As above	As above	
Gender reassignment	As above	As above	
Marriage or civil partnership	As above	As above	
Pregnancy or maternity	As above		
Race	As above		
Religion or Belief	As above		
Sex	As above		.
Sexual Orientation	As above		
Welsh Language	As above	Not at this time but the situation will be kept under review.	

4. Safeguarding & Corporate Parenting. Are your proposals going to affect either of these responsibilities?

	Describe any positive impacts your proposal has on safeguarding and corporate parenting	Describe any negative impacts your proposal has on safeguarding and corporate parenting	What will you do/ have you done to mitigate any negative impacts or better contribute to positive impacts?

Safeguarding	Not directly relevant –however, building the future economy should have a profoundly positive impact on ability to safeguard the future of our residents		
Corporate Parenting	Not directly relevant – however building strength in the economy should create opportunities for all of the young people entrusted in our care		

5. What evidence and data has informed the development of your proposal?

- Evidence and input contributed by theme leads
- Outcomes of assessments such as audit reports
- Delivery against targets set out in individual business cases/ approved project documentation

6. SUMMARY: As a result of completing this form, what are the main positive and negative impacts of your proposal, how have they informed/changed the development of the proposal so far and what will you be doing in future?

The areas requiring attention and focus are set out and follow-up actions will be assessed and monitored ongoing through the quarterly reporting mechanism. .

7. MONITORING: The impacts of this proposal will need to be monitored and reviewed. Please specify the date at which you will evaluate the impact, and where you will report the results of the review.

The impacts of this project will be evaluated on:	**Delivery of schemes**