

Complete Agenda



north wales economic ambition board
bwrdd uchelgais economaidd gogledd cymru

Meeting

TRANSPORT DELIVERY SUB-BOARD

Date and Time

9.30 am, MONDAY, 14TH SEPTEMBER, 2020

Location

Virtual Meeting

Contact Point

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(DISTRIBUTED 04/09/20)

TRANSPORT DELIVERY SUB-BOARD

MEMBERSHIP OF THE JOINT COMMITTEE

Voting Members

Councillors

Robert G Parry	Isle of Anglesey County Council
Greg Robbins	Conwy County Borough Council
Gareth Wyn Griffith	Gwynedd Council
Brian Jones	Denbighshire County Council
David Bithell	Wrexham County Borough Council
Carolyn Thomas	Flintshire County Council

Link Member of the North Wales Economic Ambition Board

Councillor Ian Roberts	Flintshire County Council
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Officers in Attendance

Emlyn Jones	Denbighshire County Council
Huw Percy	Isle of Anglesey County Council
Geraint Edwards	Conwy County Borough Council
Darren Williams	Wrexham County Borough Council
Stephen Jones	Flintshire County Council
Dafydd Wyn Williams	Gwynedd Council
Iwan Prys Jones	North Wales Economic Ambition Board
Iwan G. Evans	Monitoring Officer
Dafydd L. Edwards	Section 151 Officer

A G E N D A

1. APOLOGIES

To receive apologies for absence.

2. DECLARATION OF PERSONAL INTREST

To receive any declaration of personal interest.

3. URGENT MATTERS

To note any items that are a matter of urgency in the view of the Chair for consideration.

4. MINUTES OF THE PREVIOUS MEETING ON 17 FEBRUARY 2020 4 - 7

To confirm the minutes of the previous meeting held on 17 February 2020.

5. UPDATE REPORT ON GROWTH TRACK 360

Presentation from Cllr. Louise Gritting and Cllr. Ian Roberts, Chair and Vice-Chair of Growth Track 360

6. BUS GOVERNANCE AND NETWORK UPDATE 8 - 85

To update Members on progress with the Welsh Government proposals for i to bus governance arrangements and also progress with developing a re approach to the bus network.

Agenda Item 4

TRANSPORT DELIVERY SUB-GROUP 17.02.2020

Present:

Voting Members – Councillors: Robert G. Parry (Isle of Anglesey County Council), Greg Robbins (Conwy County Borough Council), Gareth Wyn Griffith (Gwynedd Council), Brian Jones (Denbighshire County Council) and Carolyn Thomas (Flintshire County Council).

Officers in attendance – Huw Percy (Isle of Anglesey County Council), Emlyn Jones (Denbighshire County Council), Stephen Jones (Flintshire County Council), Dafydd Wyn Williams (Gwynedd Council), Iwan G Evans (Monitoring Officer – Lead Authority), Peter Davies () and Annes Sion (minutes – Lead Authority).

1. ELECTION OF VICE-CHAIR

Although protocol did not dictate that the Chair / Vice Chair should come from the West and the East, this principle was agreed upon and thus Cllr Robert Parry (Isle of Anglesey) was elected as Vice-chair.

2. APOLOGIES

Apologies were noted from Darren Williams (Wrexham County Borough Council).

3. DECLARATION OF PERSONAL INTEREST

A declaration of personal interest was received from Cllr David Bithell - being an employee of Network Rail.

4. URGENT ITEMS

No urgent items were received for discussion.

5. MINUTES

The minutes of the previous meeting of this committee, held on 2 December 2019, were accepted as a true record.

6. TRAINS

A presentation by Ioan Jenkins, Development Director - Railway Services, Transport for Wales.

DISCUSSION

A presentation was received from Transport for Wales which outlined its plans for the year ahead. Emphasis was placed on improved performance, enhanced timetables and more trains.

Observations arising from the discussion

- It was noted that the bus and train networks needed to work together. The Transport for Wales structure was highlighted.
- The need to improve communication, with the public in particular, was emphasised. This was expanded upon by noting that timetable changes had not been brought to the public's attention. These timetable changes were discussed and it was noted that Transport for Wales hoped that adjustments would be made next year, and that discussions on the issue were ongoing.
- The journey from north Wales to Cardiff was discussed, and referred to as one of the core routes of the service. It was noted that the new express service meant that not all stations in north Wales were included, even though it stopped at many of the stations across the border. It was asked whether this could be looked at once again so that shortening journey times would not involve not stopping at stations across north Wales.
- There was a request for contact numbers in order to get in touch with Transport for Wales staff - it was agreed that the information would be sent to members following the meeting.
- The importance of creating integrated transport tickets was emphasised.
- An update on the timetabling issues was requested at the meeting of 18 May.

7. ACTIVE TRAVEL

The report was presented by Stephen Jones - Flintshire County Council.

DECISION

The Sub-Board acknowledged the requirements imposed by the Welsh Government.

DISCUSSION

In presenting the report it was noted that the Active Travel (Wales) Act 2013 had made it a requirement for every Local Authority in Wales to produce active travel maps. Integrated maps had been developed and were published in 2017. It was noted that there were further requirements within the Act to keep these maps updated and to publish an annual report.

It was expressed that the Welsh Government had revised the Delivery and Design Guidance and that a meeting to discuss this would be held in Llandudno. Also noted was the need to update the maps, and that training would be held on the consultation. As a result of this, there was a possibility that the target date of May 2020 would be extended to February 2021. It was reported that the Government had provided funding for map creation and consultation, but that the Government had not announced how much funding would be earmarked for creating the next set of maps.

Observations arising from the discussion

- It was noted that no money was available for the appointment of staff to create these maps, and it was emphasised that 10-15% of the money could be used to fund posts. It was stressed that this matter should be raised with the Welsh Government.

8. UPDATE ON THE BUS (WALES) BILL AND THE REGIONAL BUS REVIEW

The report was presented by Stephen Jones - Flintshire County Council.

DECISION

The update was noted and it was agreed that the Sub-group would discuss the matter further in the future.

DISCUSSION

The report was presented as an update to the Sub-group on the progress made with the Bus Bill, along with an update on the work to develop a regional bus network. In terms of the Bus Bill, it was noted that some elements had been taken out following its publication and the consultation upon it. It was highlighted that taxis and private hire vehicles would not feature in the final bill. In addition to this, it was reported that proposals to review the legislation governing Joint Transport Authorities had been removed from the final draft, and had subsequently been incorporated in the White Paper on Local Government and Elections. It was also noted that a proposal to review the revised age limit for concessionary fares had been removed from the bill.

In terms of the work to develop a Regional Bus Network, the need to build on lessons learned by authorities in the region was noted. It was added that Flintshire County Council and Gwynedd Council had undertaken a comprehensive review which highlighted what was required. It was reported that discussions had begun in relation to this work, and elements of the initial work plan were highlighted. It was emphasised that the scope would be revised as the work progressed.

Observations arising from the discussion

- Joint Transport Authorities were discussed, and it was noted that the Government's preferred model was different and far from straightforward.
- In terms of the Bus Bill, it was noted that further clarification was needed from the Government. In addition, it was noted that there was a need to examine which pilot scheme had succeeded, and how this could be made into a success.

9. REPORT ON CHARGING POINTS

Presented by Dafydd Wyn Williams - Gwynedd Council.

DECISION

Subject to identifying resources, commission a study to assess regional options to install, maintain and manage charging points.

DISCUSSION

In presenting the report it was noted that there was widespread demand for greater care towards the environment. It was foreseen there would be a substantial increase in the number of electric vehicles on the roads, and as a result there would be a need for more charging points. It was added that all authorities in the region were operating in different ways. Reference was made to the situation in Scotland, where there was a unified nationwide plan which was easy to understand.

Since there would be greater pressure on authorities, it was asked whether it would be possible to work collaboratively and to commission a piece of work to assess regional options and examine what benefits may derive from doing this.

Observations arising from the discussion

- It was noted that the main point was that authorities in the region were working together, and that it would be possible to ensure that charging points would be user-friendly.
- It was reported that £2m was available from the Welsh Government, albeit capped at a maximum amount for each authority. It was added that there would be a need to examine ways of funding this, and to see whether the regional approach could be a model for the whole of Wales.
- A request was made for an update on current usage of charging points at the next meeting.

10. HYDROGEN - FUEL OF THE FUTURE

The report was presented by Stephen Jones - Flintshire County Council.

DECISION

The report was noted and accepted.

DISCUSSION

In presenting the report it was noted that it contained an update on the work of developing bids for a hydrogen hub, and provided an opportunity to examine methods of undertaking joint purchases of hydrogen vehicles for use as part of Local Authority fleet services.

It was reported that studies had created opportunities to set up pilot schemes across the region. The results of the three pilot schemes were outlined. At Deeside Industrial Park it was found that hydrogen vehicles could be used, but a problem had arisen in that no double-decker vehicles were provided. It was found that hydrogen vehicles could be used for three out of four local journeys in Holyhead. The pilot scheme on the Sherpa network showed that hydrogen vehicles did not meet the requirements due to the nature of the roads and the difficulty of securing a hydrogen supply in the area. It was reported that a further scheme had been commissioned at Deeside Industrial Park, as more work was required.

It was noted that the use of hydrogen fuel was more suited to large vehicles. The need to undertake regional work was also highlighted.

The meeting commenced at 9.30am and concluded at 11.25pm.



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REPORT TO TRANSPORT DELIVERY SUB-GROUP

DATE: 14 September 2020

Title: *Regional Bus Review and Bus Update*

Author: Iwan Prys Jones – Programme Manager NWEAB

1. Purpose of the Report

To update Members on progress with the Welsh Government proposals for reform to bus governance arrangements and also progress with developing a regional approach to the bus network.

The report will also provide members with a general update on other issues reported at recent meetings.

2. Decision Sought

Members are invited to note the update and the proposals for next steps.

3. Reasons supporting the need for a decision.

The report is largely for information, to advise members of developments in relation to governance arrangements and funding of bus services since the last report and further planned work on bus services in north Wales.

No formal decision is required as a result of the report.

4 Background and Relevant Considerations

The report considers three linked issues

- An update on progress following publication of Welsh Government proposals for reform of the management arrangements for bus networks.

- An update on progress with developing a Regional Bus Strategy for North Wales following work commissioned by the NWEAB
- An update on work carried out by Arup on behalf of Transport for Wales in developing a bus vision and strategy for the North Wales Metro

Bus and Strategic Transport Reform

Members will recall the report at the last meeting that set out the then current Welsh Government thinking in relation to the Bus Bill and its proposals to legislate to secure better management arrangements for the bus network in Wales. Since then, the Covid pandemic has had a profound impact on bus usage and networks and the Welsh Government is now essentially the dominant funder of the bus industry, with patronage and fare box income having fallen away significantly as a result of reduced demand for transport.

In essence, the public sector funds about £220 million towards the costs of the bus industry annually, including school and college transport costs. A further £90 million or so comes from fare box income. As a result of the pandemic, bus patronage has fallen by about 90%, and although there are some signs of recovery, it will be some time before there is a recovery and bus usage is likely to remain low for some considerable time. At the moment therefore, the funding from Welsh Government is effectively funding current services.

In addition, the management arrangements for bus networks is considered to be complex. Most service procurement is undertaken by the 22 local authorities, with funding provided from a mix of core funding and specific funding streams. This complexity, which has developed over a 30-year period, is complex and does not necessarily support reforming networks to deliver key government priorities. The Covid crisis has highlighted the poor resilience of the current arrangements and the capacity and other weaknesses inherent in the system.

In order to support the industry in a period of turbulence and falling demand, the WG has channelled funding normally provided to operators, e.g. for concessionary fares reimbursement, or BSSG, into a single emergency fund.

The proposals presented by WG recently seek to resolve these two issues.

Firstly, using the funding currently supporting the industry to change the approach to the management of the bus system across Wales. This revised approach to funding could secure the benefits sought from the postponed legislation.

Secondly, their proposals provide for a single controlling mind for the delivery of an integrated network. In effect, this is to utilise Transport for Wales as the main delivery and procurement body for the bus system, transferring the roles from Local Authorities, in return for the LA becoming part “owners” of TfW. The Minister and Councillors would exercise joint management of TfW with LA involvement through the CJC’s that are proposed in emerging Local Government legislation.

The overall aim of the proposals is threefold

- a. To create a designed bus network, which is better coordinated through a single controlling mind
- b. To ensure that the public sector is able to use the funding provided to exert an appropriate level of control over network management
- c. Develop a long-term funding strategy so that the bus network supports the economy and wider Welsh Government ambitions.

These proposals are currently under discussion with local authority representatives, the bus industry and others considering the approach and proposals. A number of areas of concern have been highlighted, including the potential impact of the proposals on local authority staff, concerns about the inclusion of school transport costs in the funding mix, concerns that congestion reduction measures and reliability improvements are not reflected correctly in the proposals and that the discussions about future regional governance arrangements and the establishment of Corporate Joint Committees are as yet unresolved.

The changes that the review proposes are significant. The discussions over the next few months could result in alternative funding and management arrangements for bus networks. The impacts could be significant for staffing and funding arrangements. Further reports and opportunities for discussion will be available for Members as further details emerge.

Development of a Regional Bus Network

Presentations have previously been provided to Members regarding the potential for developing a regional strategic bus network and approach. Since the last meeting the Busman consultancy has been completed and a final report is available.

Work carried out includes the following

- A review of the 2014 Regional Bus Network Plan and interventions for bus included in the 2015 Regional Transport Plan.
- A review of the current (pre Covid 19) network with an assessment of which routes are commercial (wholly or partly) and which are tendered. This includes an assessment of gaps in the provision.
- Categorisation of services into: -
 - Strategic – Longer distance services connecting regionally important centres
 - Core – Services connecting significant local centres
 - Local – Services connecting communities to their local centre
 - Town – Services operating within a town area, connecting residential education and employment areas
 - Other – Services with low demand but which meet accessibility needs.
- Identification of routes / areas for quality partnerships and a proposed implementation programme.
- Potential areas for infrastructure improvements, especially at termini and interchange hubs.
- Some initial proposals under development for improved timetabling.
- A review of current initiatives and pilots for alternative and demand responsive transport solutions, in the region.

The report has been circulated as an attachment to the report for information.

When originally commissioned, it was envisaged that a second phase of work would be carried out, to develop an implementation plan and to reach agreement with bus operators and Welsh Government over funding and development options.

In view of the recent developments highlighted in the first part of the report, the second element of the planned work has been deferred for now to allow the discussions over network management and governance arrangements to be concluded.

North Wales Metro and Bus Network

The report to the last meeting of the group highlighted that Arup had been appointed by Transport for Wales to develop a report for Bus Integration as part of the North Wales Metro development. The first phase report has now been completed and the key findings will be presented to Members at the meeting. A copy of the summary report is attached for information.

The report confirms that wider reform of governance and funding arrangements for bus will be a key enabler for transforming bus networks, so that journeys can be enhanced for passenger and importantly, those who do not use the bus at present.

It also sets out a number of linked interventions that should be developed to support the development of the network. These are similar to those highlighted in the report prepared by the Busman Consultancy, the Arup proposals therefore build on work carried out to date.

The proposed next steps are to develop a detailed assessment of existing and future transport needs and to begin to devise detailed proposals for network improvements. Finally, a delivery plan for implementation will be prepared, with the work anticipated to be complete in Spring 2021.

Colleagues from Transport for Wales and Arup will be present at the meeting to provide an update on their detailed findings to date.

5. Financial Implications

There are no specific financial implications from this report, it is mainly information on work currently underway and the potential impact of proposed changes to governance and funding.

The impacts of these proposals once adopted could well have significant financial impacts, but these will be highlighted in future update reports or during the consultation that should be undertaken prior to implementation.

6. Legal Implications

There are no specific legal implications from this report. The proposed Welsh Government changes to funding and governance will have significant impacts, but specific consultation will be carried out and Members will have the opportunity to comment during required consultation periods.

7. Staffing Implications

There are no specific staffing implications at this stage – the report provides updates on work currently underway.

8. Impact on Equalities

There are no specific equalities implications at this stage – the report provides updates in work currently underway. Detailed consultation on any reports where impacts are possible will be carried out at the appropriate consultation process.

9. Consultations undertaken

There are no specific consultations required at this stage – the report provides updates in work currently underway. Detailed consultation on any reports where impacts are possible will be carried out at the appropriate consultation process.

STATUTORY OFFICERS RESPONSE:

i. Monitoring Officer – responsible body:

While I note that there are no legal implications resulting directly from this report, there will be a need for legal input once Welsh Government proposals are finalised and during the consultation process. As the report is for information only, I there are no further comments in terms of propriety

ii. **Head of Finance – responsible body:**

This update report is largely for information and states that there are no specific financial implications arising. Further comments will be made to the North Wales Economic Ambition Board (joint committee) meeting if / when the Transport Delivery Sub Group seeks additional resources to address these issues.

The 2020 North Wales Regional Bus Strategy

The Background

A written statement from the Welsh Government Transport Minister, dated 24th July 2019, confirmed an agreement with the North Wales Economic Ambition Board (NWEAB) for them to develop a Strategic Bus Network for North Wales and associated projects.

The BusMan Transport Consultancy, supported by Transport Cymru Consultancy, were appointed by Gwynedd Council on behalf of the NWEAB to produce a North Wales Regional Bus Strategy, in response to a tender advertised through Sell4Wales.

The Brief

- **Review the Bus and Community Transport Network Strategy 2015** in the light of changes since 2015 and revise the Action Plan to take account of current issues
- **Develop proposals for a Regional Strategic Bus Network**, including identification of:
 - strategic corridors
 - local networks
 - key hubs and modal change points
- **Produce an Action Plan for the roll-out of Quality Partnerships**, negotiating potential solutions with operators and other partners
- Consider potential solutions to the lack of operators in **rural areas** and propose **alternative solutions**
- Provide technical support for a programme to deliver **low/zero carbon** public transport networks and solutions as part of the NWEAB smart energy programme

The Work Plan

Review Strategy	Regional Strategic Bus Network	Quality Partnerships	Rural Solutions	Low Carbon Solutions
Read 2015 Strategy	Meet stakeholders: Bus Operators Local Authorities Transport for Wales NWEAB Welsh Govt		Assess extent of problem	Identify options
		Create Priority List from Operator/L A feedback	Report on possible solutions	Liaise with operators
Produce 2020 Strategy	Develop stakeholder involvement	Produce Quality Partnership template	Workshop: Local Authorities Community reps Taxi/CT Operators	Link introduction to Quality Partnership development
Produce revised Work Programme for consultation	Develop Strategic Network based on hierarchy of services	Select pilot schemes		
		Implement	Pilot each solution to assess impact	

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Review and Analysis

1. Documents

A number of policy documents for public transport in North Wales have been produced over the past ten years:

The Taith Regional Transport Plan

was produced by the Taith Regional Transport Consortium for the period 2010-2015. It was replaced by North Wales Local Transport Plan 2015:

The North Wales Local Transport Plan 2015

was produced by the six North Wales Local Authorities for the period 2015-2020. It drew on the work in the Taith Regional Transport Plan 2010–2015, but superseded it.

The Bus and Community Transport Network Strategy 2015

was produced by the six North Wales Local Authorities for the period 2015-2020. It was a sub-document of the North Wales Local Transport Plan 2015. *(It is sometimes referred to as the 2013 Regional Bus Strategy)*

The Bus Services (Wales) Bill 2020

was produced by the Welsh Government for 2020 onward. It sets out new arrangements for overseeing the Welsh bus network but its enactment has been delayed by the Covid-19 pandemic.

The National Transport Plan (Wales)

is currently being produced by the Welsh Government. It will deal with all transport issues in Wales, including rail and trunk road network matters.

The new 2020 North Wales Regional Bus Strategy will:

- replace the Bus and Community Transport Network Strategy 2015
- form a complimentary document to the new National Transport Plan (Wales)
- draw on the relevant work of the three existing policy documents

a) The North Wales Local Transport Plan 2015

This policy document was originally intended to be relevant until March 2020, but will remain valid for a further year, until 2021 and needs to be reflected in the 2020 North Wales Regional Bus Strategy. The North Wales Local Transport Plan 2015 aimed to identify issues and opportunities for all modes of transport (including buses) but focused on issues within the remit of local authorities. Its vision was:

The North Wales Local Authorities aim to remove barriers to economic growth, prosperity and well-being by delivering safe, sustainable, affordable and effective transport networks.

The following issues identified by the Plan have particular relevance to the development of the new 2020 North Wales Regional Bus Strategy:

- The lack of viable and affordable alternatives to the car to access key employment sites and other services
- Benefits and minimised impacts on the environment, encouraging sustainable travel
- Integration with strategic public transport services

Schemes designed to deliver these interventions were specified in a five year programme of work, 2015-2020, as well as medium and longer term schemes for the period 2020 – 2030.

Full details of all the schemes can be found in the North Wales Local Transport Plan 2015, but those five year programmes relevant to the new 2020 North Wales Regional Bus Strategy are listed in the following table, which summarises the varying levels of progress made with these schemes.

Progress of North Wales Local Transport Plan 2015 Schemes (2015-2020)

Scheme	Local Authority	Progress Made
Integrated Ticketing	All areas	Little progress. Bus/rail scheme halted when Arriva withdrew from rail franchise renewal
Abergele Park and Ride	Conwy	Not implemented
Abergele Town Centre Network Resilience improvements	Conwy	Not implemented
Colwyn Bay Station Interchange improvements	Conwy	Not implemented
Connections to Borderlands Railway Line	Flintshire & Wrexham	Some limited progress in relation to Deeside
Wrexham North – new strategic transport hub	Wrexham	Not implemented
Improved access to Ruabon Station	Wrexham	Some infrastructure work carried out but issues with lack of parking control
Improved access to Gwersyllt Station	Wrexham	Not implemented
Public transport infrastructure improvements	All areas	Some basic work on shelters but few major schemes
Quality Bus Corridors	All areas	Work on-going on Chester – Rhyl corridor.
Bus priority enhancements Penrhynside	Conwy	Not implemented
Sustainable access to Wrexham Industrial Estate	Wrexham	
Vale of Clwyd Sustainable Transport Package	Denbighshire	No bus related work

The medium and longer term bus related schemes (2020–2030) in the North Wales Local Transport Plan 2015 were:

- Bus priority improvements in Kinmel Bay
- Llandudno Junction Station
- Vale of Clwyd Sustainable Transport Package (continuation)

Junction layout modifications and traffic light phasing changes implemented in 2019/20 as part of an active travel package has resulted in a significant improvement to the flow of bus services along the Kimmel Bay corridor

The 2020 North Wales Regional Bus Strategy needs to evaluate the schemes in these lists and consider the inclusion of those that are still relevant.

b) Bus and Community Transport Network Strategy 2015

The six North Wales Local Authorities produced this document in 2013. It is a sub document of the North Wales Local Transport Plan 2015. Below are the Objectives, Key Issues and elements of the Strategy and Action Plan from the document.

i) Objectives

The objectives were based on the aspirations of the Welsh Government and of the North Wales Local Authorities:

- Supporting economic growth
- Improving access to employment health, education and other services
- Supporting rural communities
- Improving the quality of life
- Improving connectivity and increasing transport accessibility

Seven years on, in 2020, awareness of the implications of not responding to the climate emergency has grown. The objectives of the new 2020 North Wales Regional Bus Strategy must take account of the recognition that carbon reduction has become the primary, overarching aim, with a number of challenging targets to be met.

The objectives of the Bus and Community Transport Network Strategy 2015 must now be delivered within a framework that significantly reduces carbon emissions. This means that, within overall transport policy, the 2020 North Wales Regional Bus Strategy must take on a much greater importance, given the role that the bus can play in the new carbon reduction agenda.

ii) Key Issues

The Key Issues for buses include gaps in provision, as well as opportunities for buses, such as Demand Responsive Transport and Community Transport.

Over the last seven years, there have been changes to the bus network and to the demography of the region, so this analysis needs to be reviewed and revised. For example, the section on ticketing needs to be re-written in the light of the technological advances that have been made in this field and the new opportunities now available.

iii) Strategy and Action Plan

This includes:

- Bus network coverage
- Vehicles
- Infrastructure
- Bus network performance
- Stakeholder engagement

These elements are still relevant, and form the basis of the 2020 North Wales Regional Bus Strategy:

- A thorough analysis of the current **bus network** has been undertaken.
- The **vehicle specification** in 2020, while still including the need for “*good quality vehicles.....with modern and comfortable interiors*”, also has to reflect the commitment made by Welsh Government to move to a zero carbon bus fleet very quickly. The 2020 North Wales Regional Bus Strategy sets out a programme of investment to meet this target in conjunction with operators.
- The cuts to expenditure experienced through the period of austerity in the UK since 2008, means that much of the **bus infrastructure** installed, using government grants available from 1996, is now in poor repair and needs to be replaced. The 2020 North Wales Regional Bus Strategy sets out an infrastructure standard for the bus network in North Wales and a proposed mechanism for ensuring it is provided and then maintained in good condition.
- If public funds are to be invested in the bus network, it is essential that the bus services delivered are reliable, punctual and meet agreed quality standards. **Performance monitoring** needs to be introduced with Key Performance Indicators, targets and publicly available results. This performance monitoring should be applied to service operation, and infrastructure and information provision. The 2020 North Wales Regional Bus Strategy sets out in detail how this monitoring should operate and how **stakeholders** will be involved.

c) Bus Services (Wales) Bill 2020

The Bus Services (Wales) Bill 2020 sets out new arrangements for overseeing the Welsh bus network. The purpose of the Bill is to:

provide Local Authorities with an improved range of tools to use in the planning and delivery of local bus services in their areas

The new tools are:

- Welsh Partnership Schemes:
Local Authorities and bus companies will be able to agree:
 - routes, times and frequencies
 - what facilities should be provided in buses (*eg. Wi-fi*)
 - ticket prices and types
 - how to provide information
 - investment in infrastructure
 - traffic management measures
- Welsh Franchising Schemes:
Local Authorities will be allowed to set up franchising schemes where bus companies get exclusive rights to run designated bus services on set routes
- Local Authority Bus Services
Local Authorities will be able to operate their own buses on scheduled local bus services

The implications of these potential changes on the governance of bus services constitute a material change to the background of the Bus and Community Transport Network Strategy 2015 and are considered in the 2020 North Wales Regional Bus Strategy.

2. Consultation

In order to understand the views and aspirations of stakeholders a series of consultation meetings were held with key individuals and organisations.

Local Authorities

Meetings have been held with local authority public transport officers collectively and individually. This has enabled an understanding of the bus related work that is being carried out currently and has assisted in the categorisation of bus services (see below).

Bus Operators: Arriva

Meetings have been held with the Managing Director of Arriva in North Wales and his senior operational team. He is very keen to work with the public sector to develop bus services and has been open in sharing commercial information. As an outcome of the meetings, Arriva identified their key services, with optimum frequencies and potential infrastructure improvements to improve reliability and patronage, outlined. This work is summarised in the blue table on the next page.

General improvements identified by Arriva for implementation on all services were:

- control of parking at bus stops
- improved information provision

Arriva also identified some potential new initiatives:

Potential for growth: 41A Wrexham – Pentre Gwyn – Marchwiel

Potential new service: X3 Mold – Chester Express

(The TrawsCymru Review 2019 identified this service as part of a potential new Corwen – Ruthin – Mold – Chester service, connecting at Corwen with TrawsCymru services to Machynlleth, Aberystwyth and Barmouth, and largely provided out of existing resources. This is discussed below in more detail)

The information obtained from Arriva has been of significant value in developing an Infrastructure Investment Programme and a Quality Partnership Implementation Plan.

Consultation with other operators

Similar discussions with the other commercial operators in the region were planned, but the Covid-19 lock-down was implemented before these meetings could take place.

Meetings with other Organisations

Regular meetings have taken place with Officers from Transport for Wales and the North Wales Economic Ambition Board, with the purpose of understanding how bus policy was developing in Wales and avoiding duplication of work.

Detailed work on developing the 2020 North Wales Regional Bus Strategy has followed these meetings.

Arriva Key Services

Service		Frequency (Mon-Fri)	Infrastructure Work/Issue
1	Wrexham - Chester	12 minutes	Bus lanes Chester Business Park
2/2A	Wrexham - Oswestry	15 minutes	
4	Bangor - Holyhead	30 minutes	Traffic issues between Anglesey & the mainland (also relevant to services 53 – 58 and 62)
4	Mold – Chester	30 minutes	Bus lanes/priority Saltney Parking control Buckley Cross
X4	Mold - Chester	30 minutes	Bus lanes Chester Business Park Parking control Buckley Cross
5	Caernarfon-Bangor-Llandudno	15 minutes	Traffic congestion Ysbyty Gwynedd & Penrhos Schools Traffic light priority Llandudno Delays at A55 roundabouts.
5	Wrexham - Llangollen	30 minutes	Parking control Ruabon Interchange Terminal arrangements Llangollen
10	Chester – Connahs Quay/Flint	15 minutes	Bus priority/bus lanes Deeside & Flint
11	Chester-Flint-Holywell-Rhyl	30 minutes	Bus priority/bus lanes Deeside & Flint Improvements Holywell Bus station Parking control Ffynnongroew Traffic light priority Prestatyn Bus Station
12	Rhyl-Colwyn Bay-Llandudno	12 minutes	Bus priority Colwyn Bay, including improved access to Station for interchange Traffic light priority Abergele-Llandudno
13	Prestatyn - Llandudno	40 minutes	Traffic light priority Abergele-Llandudno
14/15	Conwy-Llandudno-Colwyn Bay-Llysfaen	30 minutes	Bus priority Colwyn Bay, including improved access to Station for interchange Traffic light priority Colwyn Bay-Llandudno
27	Mold-Wrexham	60 minutes	Parking control & enforcement Caergwrle & Leeswood
35/36	Rhyl-Dyserth-Prestatyn	30 minutes	Traffic light priority Prestatyn Bus Station
51	Rhyl–Denbigh	20 minutes	Traffic light priority St. Asaph–Trefnant Parking control St. Asaph
53-58	Bangor – Beaumaris	40 minutes	Bus stop arrangements in Menai Bridge Parking control & enforcement Menai Bridge & Beaumaris
62	Bangor–Amlwch	30 minutes	Bus stop arrangements Menai Bridge & Amlwch

3. The Current Regional Bus Network

a) Categorisation of Services

All existing local bus services in Wales have been categorised using the service types defined below:

	Function is to connect:	Linked with/connecting to:
Strategic	Regionally important centres: Longer distance services	Core and Local Services at high quality hubs
Core	Significant local centres A key element of the regional bus network	Strategic and Local Services at high quality hubs
Local	Communities to their local centre With sufficient demand to justify use of conventional vehicles	Strategic and Core Services at high quality hubs for longer journeys
Town/City	Residential, educational and employment areas with the town/city centre	Strategic, Local and Core Services at high quality hubs for longer journeys
Other	Services with low demand but meeting basic accessibility needs Operated by DRT, taxis, community transport or other unconventional modes Includes a sub-group of services predominantly aimed at the tourist market	

These categories define the function of the service and do not reflect it's importance. For example, Strategic Services are not more important than Local Services and should not be given any priority in funding allocation.

The categories allocated have been reviewed with local authority officers and information added relating to days of operation, frequency and funding mechanism.

The blue tables which follow (*pages 11-17*) contain the key information about the categorisation of services in North Wales.

(Further information about each service is attached as a separate document)

A North Wales standard of vehicle could be agreed appropriate to each category of service.

This analysis highlights gaps in service provision and the requirement for revenue support, and further analysis of each issue follows the tables below.

**b) Key information about the categorisation of services in North Wales:
Strategic, Core, Local, Town, Other**

NB.

- *These tables are not complete. It is difficult to obtain details of pre-Covid timetables*
- Codes: C=Commercial service T=Tendered service D=Service receiving de-minimis payment

Strategic Services

Service Number	Description	C/T/D	Evenings Frequency/ No. of trips	Sundays Frequency/ No. of trips
X1	Ruthin – Mold - Chester	T	-	-
11	Rhyl – Holywell – Shotton - Chester	C/D	2 journeys	Every 2 hrs
12	Rhyl – Colwyn Bay - Llandudno	C	40 minutes	20 minutes
13	Prestatyn - Llandudno	C/D	4 journeys	Hourly
51	Rhyl – St. Asaph - Denbigh	C/D/T	7 journeys	Hourly
T3	Wrexham – Llangollen – Dolgellau - Barmouth	D/T	1 journey	5 journeys
4	Mold - Chester	C/D	Hourly	30 minutes
X4	Mold - Chester	C	-	-
27	Mold - Wrexham	C	-	-
1	Wrexham - Chester	C	30 minutes	30 minutes
T12	Wrexham – Oswestry – Newtown - Machynlleth	T	-	-
4	Holyhead – Llangefni - Bangor	C/D	Hourly	Every 2 hrs
62	Amlwch - Bangor	C/D	Every 2 hrs	Every 2 hrs
1	Caernarfon - Porthmadoc	C/T	-	✓
1A/B/R	Caernarfon – Porthmadoc - Blaenau	C/D	-	✓
1S	Caernarfon – Blaenau (Sundays)	T	-	✓
5	Llandudno - Bangor	C/D	Hourly	Every 30
12	Pwllheli - Caernarfon	C/T	-	✓
T2	Aberystwyth - Bangor	C/T	2 journeys	4 journeys
X19	Blaenau - Llandudno	C/D	-	4 journeys

Core Services

Service Number	Description	C/T/D	Evenings Frequency/ No. of trips	Sundays Frequency/ No. of trips
53 - 58	Bangor - Beaumaris	C/D	4 journeys	Every 2 hrs
X43	Bangor - Talwrn	D	-	-
32	Amlwch - Llangefni	T	-	-
45	Llangefni - Aberffraw	T	-	-
25	Holyhead - Aberffraw	T	-	-
42/42A	Bangor - Llangefni	T	-	2 journeys
61	Holyhead - Amlwch	C/D	-	-
1F	Caernarfon - Groeslon	D	-	-
1N	Caernarfon - Nantlle	D/T	-	-
2/2G	Caernarfon - Barmouth	T	-	✓
3	Pwllheli - Porthmadog	C	-	-
3B	Pwllheli - Blaenau	T	3 journeys	-
6B	Bangor - Llanrwst	T	-	-
8	Nefyn - Pwllheli	T	-	✓
17/17B	Pwllheli - Aberaeron	T	-	-
18	Pwllheli - Abersoch	T	-	✓
28	Towyn - Dolgellau	D	-	-
28/X29	Machynlleth - Dolgellau	D/T	-	✓
30	Tywyn - Dolgellau	T	-	-
35	Dolgellau - Blaenau	C/T	-	-
38	Dolgellau – Oakley Arms	C	-	-
39	Porthmadog - Barmouth	C	-	-
67	Bangor - Gerlan	C/T	1 journey	✓
76	Bangor - Bethesda	T	-	-
83	Caernarfon - Dinorwig	D	-	✓
85/86	Bangor - Llanberis	D	-	✓
88	Llanberis - Caernarfon	D/T	-	✓
91	Caernarfon – Dinas Dinlle	T	-	-
X28/29	Tywyn - Aberystwyth	C	-	-
14/15	Llysfaen – Llandudno/Conwy	C	-	-
19	Llanrwst - Llandudno	C/D/T	2 journeys	6 journeys
1/2	Ruthin - Mold	T	-	-

Core Services continued				
5	Wrexham - Llangollen	C/D	3 journeys	Every 2 hrs
14	Denbigh - Mold	T	-	-
55/X5	Ruthin – Corwen – Llangollen – Wrexham	T	-	-
X51	Rhyl – Denbigh – Ruthin - Wrexham	C/D/T	2 journeys	4 journeys
5	Mold – Ellesmere Port	T	-	-
10	Connah's Quay - Chester	C	Hourly	30 minutes
28	Mold - Flint	C	-	-
D1	Flint – Deeside Industrial Park	T	Hourly	Hourly
D2	Connah's Quay – Deeside Industrial Park	T	-	-
D3	Flint – Deeside Industrial Park	T	-	-
2/2A	Wrexham - Oswestry	C	Hourly	Hourly
2C	Wrexham – Cefn Mawr	C	-	-
3	Wrexham - Penycae	C	-	-
4	Wrexham - Rhosllanerchrugog	C	-	-
5	Wrexham - Chester	C	-	-
11	Wrexham - Minera	C	-	Hourly
12	Wrexham - Brymbo	C	-	Hourly
14	Wrexham - Brymbo	C	-	-
21	Wrexham - Summerhill	C	-	-
33	Wrexham - Llay	C	-	Hourly
41A	Wrexham – Wrexham Industrial Estate	C	-	-
41B	Wrexham – HMP Berwyn	T	-	Hourly
146	Wrexham - Whitchurch	T	-	-

Local Services

Service Number	Description	C/T/D	Evenings Frequency/ No. of trips	Sundays Frequency/ No. of trips
31	Amlwch – Capel Parc	T	-	-
23	Holyhead - Rhoscolyn	T	-	-
50	Llangefni - Beaumaris	T	-	-
51	Llangefni - Moelfre	T	-	-
54	Llangefni - Llangaffo	T	-	-
55	Llangefni - Llanbedrgoch	T	-	-
63	Bangor – Llanerch-y-Medd	T	1 journey	-
60	Amlwch - Carreglefn	C/D	-	-
8/8B	Pwllheli - Tudweiliog	C/T	-	-
14	Pwllheli - Trefor	T	-	-
27	Pwllheli – Llithfaen - Nefyn	T	-	-
33/36/533	Machynlleth - Dolgellau	T	-	-
34	Machynlleth - Aberllefenni	C/T	-	-
T36	Machynlleth – Dinas Mawddwy	T	-	-
21	Abergele – Colwyn Bay	T	-	-
24	Llandudno – Colwyn Bay	T	-	-
25/X25	Llandudno - Eglwysbach	T	-	-
27	Conwy – Tan Lan	C	-	-
42	Llanrwst - Llangernyw	T	-	-
43	Abergele - Llangernyw	T	-	-
68	Llanrwst – Local Villages	T	-	-
70	Llanrwst - Corwen	T	-	-
71	Corwen - Denbigh	T	-	-
71A	Denbigh - Llansannan	T	-	-
75	Llandudno - Llanfairfechan	T	-	-
18	Rhyl - Flint	D	-	-
19	Rhyl - Flint	D	-	-
35/36	Rhyl – Dyserth - Prestatyn	C/D	2 journeys	Every 2 hrs
45/46	Rhyl – Ysbyty Glan Clwyd	T	-	-
54	Trefnant – St. Asaph Business Park	T	-	-
64	Llanarmon D.C. - Llangollen	T	-	-
Local Services continued				

66	Denbigh – Henllan	T	-	-
172	Ruthin - Derwen	T	-	-
76	Ruthin - Denbigh	T	1 journey	4 journeys
176	Ruthin - Bryneglwys	T	-	-
191	Llangollen – Melin-y-Wig	T	-	-
95	Bryneglwys - Llandegla	T	-	-
6	Mold - Pantymwyn	T	-	-
8	Mold – Sealand Manor	T	-	-
9	Connah’s Quay – Broughton Retail Park	T	-	-
14A	Caerwys - Holywell	T	-	-
23	Holywell - Greenfield	D	-	-
61/2	Higher Kinnerton - Chester	T	-	-
126	Mold - Holywell	D	-	-
DB4	Deeside Industrial Park - Chester	C	-	-
17	Wrexham - Moss	C	-	-
34	Wrexham - Trevallyn	T	-	-
42F	Wrexham – Rhos-y-Madoc	T	-	-
45F	Wrexham - Bettisfield	T	-	-
T22	Wrexham – Pentre Bach	T	-	-
T23	Wrexham - Adenbury	T	-	-

Town Services

Service Number	Description	C/T/D	Evenings Frequency/ No. of trips	Sundays Frequency/ No. of trips
36	Llangefni local	T	-	-
48	Llangefni local	T	-	-
24/24A	Holyhead local	C/D	3 journeys	-
21/22	Holyhead local	T	-	-
9C	Bangor - Tesco	C	-	✓
23/23A	Pwllheli local	T	-	-
29	Towyn local	T	-	-
33A	Dolgellau local	T	-	-
37	Blaenau local	T	-	✓
75	Maesgeirchen – Bangor – Plas Menai	C	-	-
78/78A	Maesgeirchen - Bangor	C/T	-	-
79	Bangor – Ysbyty Glan Clwyd – Parc Menai	C	-	-
92/93	Caernarfon local	D	-	-
99	Porthmadoc – Borth-y-Guest	T	-	-
23	Tan Lan – Colwyn Bay – Colwyn Heights	T	-	-
26	Llandudno local	T	-	-
47	Rhyl – Highfield Park	T	-	-
173	Ruthin local	T	-	-
83/84/85	Rhyl locals	C/D/T	-	30 minutes
16	Saltney - Chester	C	2 journeys	30 minutes
22	Pen-y-Maes – Holywell - Holway	T	-	-
7	Wrexham – Caia Park	C	-	-
8	Wrexham – Caia Park	C	-	-
35	Wrexham – Plas Goulbourne	C	-	-
TL1	Wrexham - Borrás	T	-	-

Other Services

Service Number	Description	C/T/D	Evenings Frequency/ No. of trips	Sundays Frequency/ No. of trips
52	Llanrhuuddlad - Llangefni	T	-	-
1M	Maestryfan – Rhos Isa	T	-	-
5A	Bangor – Caernarfon - Nazareth	T	-	-
68	Bala - Glanrafon	T	-	-
69/70	Bala local	T	-	-
99A	Porthmadog - Croesor	T	-	-
99B	Porthmadog - Rhyd	T	-	-
40	Dyserth - Rhyl	T	-	-
66	Denbigh - Llanefydd	T	-	-
140	Bodfari - Rhyl	T	-	-
198	Llangollen - Pedol	T	-	-
811	Leasowe – Deeside Industrial Park - Broughton	T	-	-
CT1	Caergwrle - Broughton	T	-	-
CT3	Northop Hall – Connahs Quay	T	-	-
LT1	Holywell – Rhes-y-Cae	T	-	-
LT2	Holywell - Caerwys	T	-	-
LT3	Holywell - Greenfield	T	-	-
LT4	Buckley Town Service	T	-	-
LT5	Buckley - Penyffordd	T	-	-
LT6	Penyffordd – Broughton Retail Park	T	-	-
LT7	Mold – Treuddyn - Hope	T	-	-
PC1	Southsea – Llay Industrial Estate	C	-	-
PC2	Gatewen – Llay Industrial Estate	C	-	-

Snowdon Sherpa

Service Number	Description	C/T/D	Evenings Frequency/ No. of trips	Sundays Frequency/ No. of trips
S1	Llanberis – Pen y Pass	T	-	Irreg(min hrly)
S2	Llanberis - Llanrwst	T	-	Hourly
S4	Caernarfon - Beddgelert	T	-	2 journeys
S97	Porthmadog - Beddgelert	T	-	2 journeys

TrawsCymru Services

Included in the Strategic services are a number of TrawsCymru services.

TrawsCymru is a network of long distance bus services covering the whole of Wales. It is a combination of tendered and commercial services, provided by a number of operators but with a common branding. The origin of TrawsCymru is the Traws Cambria Bangor – Cardiff service which was introduced in 1979. This was partly an attempt to improve connectivity between north and south Wales. As devolution gave greater powers to Wales and the strategic focus on the needs of Wales developed, the potential for an expanded network of long distance bus services was highlighted. In 2008, the Welsh Government's Transport Strategy 'Connecting Wales' promised expansion of the Traws Cambria network.

Subsequent developments and investment, together with a re-branding in 2011 as TrawsCymru, have led to the current operation of 10 main services and 4 TrawsCymru Connect services. The TrawsCymru services operating in North Wales are:

T2	Bangor – Aberystwyth	These two services connect in Dolgellau
T3	Wrexham – Barmouth	
T12	Wrexham – Newtown – Machynlleth	Connects with T2 at Machynlleth

One of the main criteria applied to potential TrawsCymru services is that they should supplement, rather than duplicate, the rail network, so that they form part of a single long distance network. In the North Wales region, there are significant areas which are not part of this long distance public transport network.

As part of the TrawsCymru Review 2019, carried out for Welsh Government by The BusMan Transport Consultancy, the University of Southampton produced a Demand Prediction Model for analysing the potential demand for new TrawsCymru services. This suggested there was a case for converting some existing bus services into TrawsCymru routes. Those proposed were:

T15 Rhyl – St. Asaph – Denbigh – Ruthin – Wrexham.

This is currently the Arriva X51 service which has been suspended east of Denbigh due to the Lockdown. Its future post-pandemic is uncertain giving an opportunity for the proposal to be implemented. Connections would be made with the rail network at Rhyl and Wrexham.

T16 Corwen – Ruthin – Mold – Chester

This service would combine 2 existing tendered routes using the same resources but connecting with the T3 at Corwen and linking parts of Denbighshire and Flintshire to Chester and the rail network.

The introduction of these services needs to be considered in implementing the North Wales Bus Strategy.

c) Gaps in Service Provision

Whilst the current pattern of services (pre-Covid-19) provides a reasonably comprehensive network, linking most towns and villages, there are undoubtedly unmet needs, particularly in the Deeside area, along the northern coastal strip and in deep rural areas.

These unmet needs are difficult to quantify, due to the lack of information from non-bus users, who either do not travel or who currently undertake journeys by other means, for a variety of reasons which could include:

- no suitable bus service being available at all
- no suitable bus service at the specific times required
- much slower journey times by bus
- bus service cancellations and delays, especially with no information available
- quality of bus provision seen as a poor alternative to the private car
(*eg. vehicles, waiting facilities, journey time*)
- unwillingness to use public transport

Many bus services in North Wales only operate in the daytime, Monday – Saturday. From analysing the current network, one of the main issues that stands out relates to the complete lack of evening and Sunday services on many routes, and very infrequent services on other routes. Even some routes classed in this report as strategic are devoid of any evening and/or Sunday services, and others have a very infrequent service. The evening and Sunday services which do exist are mainly funded through Local Authority contracts or de-minimis arrangements with the operator of the day-time service.

(The services operating evenings and/or Sundays are specified in the Tables pages 11-17)

The lack of early morning, evening and Sunday services causes problems for those who work or need to travel outside core hours. Links to employment sites, at times to suit shift patterns (particularly early morning and evenings) are a barrier to increasing the number of travel to work bus journeys, especially where facilities are not on a frequently served bus corridor or are outside the central area of a town.

It is hoped that the North Wales Transport Model, currently being developed for TfW, will provide valuable data that will not only assist in testing the effects of service enhancements on current routes and infrastructure improvements, but also identify opportunities for new services to facilitate a modal shift from car to bus for commuting.

d) Revenue Support Requirement

The bus network is dependent on funding from local and national government. A small minority of services are entirely commercial and even these receive public funding through Bus Services Support Grant (BSSG) and concessionary fares reimbursement. The maintenance of a comprehensive bus network in North Wales is therefore dependent on significant levels of subsidy.

As quantified in the Table below, out of 178 bus services operating in the region, 144 require some degree of revenue support (excluding Bus Services Support Grant or concessionary fares reimbursement which are provided for every bus service). To maintain a bus network at the current level will therefore require a significant amount of public sector funding.

Service Category	Wholly Commercial	De-Minimis/Tendered (part or whole)
Strategic	4	16
Core	18**	37
Local	3	48
Town	7	18
Other	2	21
Sherpa	0	4
Total	34	144

***many of these services are in Wrexham and are commercial because the evening tendered service has been withdrawn due to local authority cuts*

From information received from local authority officers, the current expenditure (pre-pandemic) is shown in the table below. (Figures for local authority contract payments include their BSSG allocation). To continue to operate a similar network of services will require a significant uplift in budgets, not only to bring about improvements in quality and frequency, but to offset the significant drop in passenger numbers due to the Covid-19 pandemic. The medium and long term effect of this crisis is currently difficult to calculate but it is likely to reduce further the number of commercial services.

Particularly in rural areas, tendered local bus services carry school and college students who are entitled to free transport. A financial re-charge is made from the Education Department budget, which helps to fund the local bus service. Without this support, the cost of the service could not be maintained. In some cases, commercial services are also supported in this way. Separation of the planning of local bus services from the provision of home to school transport would make this joint funding harder to coordinate.

	Rev support inc Ed re-charge	Com BSSG	Concess Fares	Total
Anglesey	£998,238		£920,435	£1,918,673
Gwynedd	£2,674,335		£1,688,992	£4,363,327
Conwy	£780,640		£2,890,303	£3,670,943
Denbigh	£877,000		£1,837,758	£2,714,758
Flintshire	£		£	£
Wreccsam	£		£	£
Sub total	£		£	£
North Wales		£		£
			Total Public Support	£

(Awaiting data from Flintshire & Wreccsam)

In addition to these figures, payments have been made to allow free travel on weekends on TrawsCymru services.

The question about whether public sector funding at this level justifies greater public sector involvement in the planning, management and operation of the network needs to be addressed. This is thought to be one of the primary reasons why The Buses (Wales) Bill 2020 was introduced.

e) Challenges in Rural Areas

The provision of bus services in deep rural areas is a particular challenge which requires detailed analysis.

Local authorities are currently responsible under section 63 of the 1986 Transport Act for funding and organising the provision of socially necessary, but non-commercial, bus services. In carrying out this role in rural areas, local authorities are currently faced with a number of challenges.

i) Lack of Operators

In North Wales, authorities have become concerned that the number of operators tendering for these services is steadily reducing, to a point where some operators are in a near monopoly position and are able to obtain very high prices for contracts.

For example, in Denbighshire it is becoming increasingly difficult to obtain sufficient vehicles from commercial operators for tenders at a price that enables operation within the budget that is available. The main reason for this is an on-going reduction in the number of operators in the County, particularly in the south.

Recent experience is that less than two bids on average are received for every tender in South Denbighshire. The 18 'big bus' contracts are currently carried out by only two operators. The growth of GHA Coaches led to them taking over a number of small companies. The subsequent demise of GHA has led to a gap in the market which has not been filled, allowing the few remaining operators to increase their prices.

The additional loss of Padarn Bus and Express Motors who provided a large number of services in North West Wales has also had a significant effect on operator capacity to provide services, particularly in Gwynedd and Anglesey.

The consequences of the Covid-19 lock-down could make this problem worse if operators do not survive the resulting loss of income and commercial services are de-registered because of the impact of social distancing.

ii) Price

There is concern that the lack of competition allows operators to increase their prices and make monopoly profits. Academic research has found that contract prices for tendered bus services do fall as the number of operators bidding goes up.

(‘Tendered bus services in London’, Toner (2001); Paper in ‘Research in Transport Economics’, J. Aarhaug and others (2018))

Contract prices in North Wales have increased by more than the rate of inflation, as the number of operators tendering has reduced. The lack of competition also means that the prices received cannot be tested for value for money.

iii) Quality

Quality issues have been experienced, with regular examples of vehicles breaking down, running late or not meeting contract conditions. The lack of alternative operators makes it difficult to enforce quality standards.

iv) Falling Demand

Many local bus services in deep rural areas have experienced falling demand in recent years, leading to a reduction in services in response to the lack of funding available. The continued operation of services carrying very few passengers is difficult for local authorities to justify but, for the people who do rely on them, they are a lifeline, especially in enhancing quality of life for older people:-

Growing awareness of the climate emergency and the need to reduce private car use could act as a stimulus to demand, if ways of providing a sustainable service could be found. On the other hand, increased working from home, which could continue beyond the Covid-19 pandemic restrictions, could further reduce demand.

v) Reducing Budgets

The years of austerity since 2008 have resulted in significant cuts in local authority budgets. This has led to the reduction or withdrawal of non-statutory services. Local authorities have a legal obligation to consider the social needs of communities in relation to the provision of bus services, but there is no quantified requirement for services to be provided. Bus service support has therefore been reduced or terminated in almost every County in North Wales.

Wrexham, for example, provide no revenue funding for bus services, but rely solely on their allocation of BSSG for supporting a small number of bus services.

2020 Strategy

The above review and analysis of services across the North Wales region indicates the following actions as both desirable and urgent:

- A programme for the introduction of Quality Bus Partnerships, including optimum frequencies, infrastructure investment and key interchanges with other modes and other levels of bus service
- Estimate the amount of revenue support required across North Wales to maintain the current network
- Identify gaps in service and propose interventions
- A programme of infrastructure work to maximise the potential of the network
- Identify where unconventional services have been introduced and analyse their effectiveness
- A programme, linked to the introduction of Quality Partnerships, to move to a zero carbon bus fleet

1. Management and Funding/ Quality Partnerships

Although the Buses (Wales) Bill 2020 proposes providing local authorities with an improved range of tools to use in the planning and delivery of local bus services (*page 7*), its progress beyond publication into Law has been stalled by the Covid-19 restrictions. It seems unlikely now that it will become Law before the Welsh Government elections planned for 2021, which means it will be dependent on a new elected body for its enactment.

Given the urgent need to improve the performance of the regional bus network (and the potentially serious consequences of Covid-19 on the bus network), it makes sense to use existing legislation, rather than to wait for what might transpire in the future.

A programme of Quality Partnerships is therefore proposed.

The following programme is focused on services which are predominantly commercial and which are categorised as Strategic.

(How Quality Partnership principles can be applied to tendered services, to maintain quality levels and monitor performance, is covered on pages 36-37 below)

a) Quality Partnership for Strategic Services: Partner Responsibilities

For each Partnership, Partners will agree:

- Optimum frequency of services
- Infrastructure investment schemes, including bus priority measures
- Key interchange points where the strategic service connects with long distance (rail or TrawsCymru) services and other categories of bus service.

Discussions on a legal agreement for a Quality Partnership in Flintshire are at an advanced stage. It is envisaged that this would become a template agreement, which could cover all Quality Partnerships in the region. Within that legal agreement, the following principles should be applied in relation to the responsibilities of the Partners.

Quality Partnership for Strategic Services: Partner Responsibilities**Regional Transport Authority/Local Authority Responsibilities**

- Sign Service Level Agreement for provision of bus stop information and infrastructure, to agreed North Wales Standard
- Develop and implement agreed bus priority schemes specific to each corridor partnership
- Develop and maintain interchanges and stops to agreed North Wales Standard
- Attend Quarterly Service Delivery Group meetings to deal with road works, bus priority, parking enforcement etc. (*meetings to include representatives of Local Authority Highways departments and The North & Mid Wales Trunk Road Agency*)
- Produce performance information on: Revenue, Patronage and Reliability

Bus Operator Responsibilities

- Agree the timetable to be operated
- Agree to make no timetable changes without discussion at Quarterly Service Delivery Group meeting
- Provide vehicles and operate services to a standard as specified in the Partnership Agreement
- Accept penalty/rewards scheme in connection with operational performance (*payment of an element of the Bus Services Support Grant could be linked to operational performance*)
- Attend Quarterly Service Delivery Group meetings

Welsh Government/Transport for Wales Responsibilities

- Provide funding for programme of infrastructure improvement
- Fund Service Level Agreements for maintenance of infrastructure, with a guarantee of funding for the 5 years of each QP Agreement
- Fund Service Level Agreement for provision of information with a guarantee of funding for the 5 years of each QP Agreement

b) Quality Partnership for Strategic Services: The Programme

It is recommended that Quality Partnerships are implemented over a four year programme. Partnerships would cover a five year period, so Year 1 partnerships would be re-negotiated in Year 5, and so on.

Year 1

Service Number	Route Description
1	Caernarfon – Porthmadog (<i>existing QP in place, needs to be renewed</i>)
5	Llandudno – Bangor – Caernarfon (<i>existing QP in place, needs to be renewed</i>)
11	Rhyl – Holywell – Deeside – Chester (<i>currently being negotiated</i>)
12	Rhyl – Colwyn Bay - Llandudno
T3	Wrexham - Barmouth

Year 2

Service Number	Route Description
1	Wrexham - Chester
4	Bangor - Holyhead
27	Mold - Wrexham
51	Rhyl – Denbigh (-Ruthin - Wrexham)
T2	Bangor - Aberystwyth

Year 3

Service Number	Route Description
3	Pwllheli - Porthmadoc
4/X4	Mold - Chester
12	Pwllheli - Caernarfon
62	Bangor - Amlwch

Year 4

Service Number	Route Description
19/X19	Llandudno - Blaenau
39	Porthmadoc - Barmouth
X1	Ruthin – Mold - Chester
13	Llandudno - Prestatyn

2. Infrastructure

The Welsh Government Transport White Paper states:

We need public transport to operate as one seamless service

To deliver a truly integrated transport system in Wales, we need to ensure that bus services.....are integrated with rail and other transport services

This vision of an integrated transport system needs to be applied to the North Wales regional bus network. Rather than thinking in terms of a local bus network + a long distance bus network + a rail network, these different elements need to be seen and thought of as a single integrated and co-ordinated public transport network.

In order to effect this vision in North Wales, three elements need to be implemented:

- a) Categorisation of interchanges and bus stops
- b) Timetabling to maximise connections at interchanges
- c) A high standard of infrastructure

a) Categorisation of Interchanges and Bus Stops

Category 1	Principal Interchanges
Category 2	Key Interchanges
Category 3	Small Interchanges
Category 4	Village Centres (one main stop to be identified in each community)**
Category 5	Other Bus Stops (between Interchanges &/or Centres)

***Category 4 served by only one bus service*

These categories have been applied to every settlement in North Wales, with details of services available locally and existing bus links (*see separate document*). This process has enabled Interchange points (Categories 1-3) to be identified, as set out on the following page.

The Principal Interchanges

Interchange Location	Services at Interchange						
	Train	Traws Cymru	Strategic	Core	Town	Local	Other
Bangor	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Wrexham	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Caernarfon		Yes	Yes	Yes	Yes		Yes
Rhyl	Yes		Yes	Yes	Yes	Yes	Yes
Llandudno	Yes		Yes	Yes	Yes	Yes	
Dolgellau		Yes	Yes	Yes	Yes	Yes	

The Key Interchanges

Interchange Location	Services at Interchange						
	Train	Traws Cymru	Strategic	Core	Town	Local	Other
Mold			Yes	Yes		Yes	Yes
Ruabon	Yes	Yes		Yes			
Colwyn Bay	Yes		Yes			Yes	
Holyhead	Yes		Yes	Yes	Yes	Yes	
Llangefni			Yes	Yes	Yes	Yes	Yes

The Small Interchanges

Interchange Location	Services at Interchange						
	Train	Traws Cymru	Strategic	Core	Town	Local	Other
Blaenau Ffestiniog	Yes		Yes		Yes		
Conwy	Yes	Yes	Yes		Yes	Yes	
Flint		Yes	Yes	Yes			
Porthmadog	Yes	Yes	Yes	Yes	Yes		Yes
Prestatyn			Yes	Yes		Yes	Yes
Shotton	Yes	Yes	Yes	Yes		Yes	
Amlwch			Yes	Yes		Yes	
Denbigh			Yes	Yes		Yes	Yes
Pwllheli	Yes		Yes	Yes	Yes	Yes	
Llangollen	Yes	Yes		Yes		Yes	Yes
Menai Bridge			Yes	Yes		Yes	
Ruthin			Yes	Yes	Yes	Yes	Yes

b) *Timetabling to maximise connections at interchanges*

Achievement of 'a truly integrated transport system in Wales' requires the creation of timetables which enable realistic and attractive connections to take place at designated interchanges.

An integrated timetable needs to be created, beginning with train services (which are the least flexible) and moving through strategic bus services to local, core, town and other services.

The standard against which other networks are judged is that found in Switzerland, where the integration of public transport is given a high priority in government planning.

'Taktfahrplan' – the Swiss public transport operation

Switzerland is regarded as the standard setter for integrated high quality public transport systems. The hall marks of the Swiss public transport system are:

- co-ordination between modes and among operators
- a simple fare system
- common standards and good connectivity
- an ethos of public service

The foundation of the whole operation is the Swiss model of timetable planning, what is known as the 'Taktfahrplan' – the 'clock face', or 'standard hour' timetable. This is based on the following principles:

- optimisation of connectivity at key nodes
- 'mirror image' timings for two directions
- rigorous application of standard hour patterns
- overlaying additional peak services onto the basis pattern

The implementation of such a system on the North Wales regional bus and rail network would maximise connectional possibilities and enable a truly integrated public transport network to be built on this foundation.

To move to such a network in North Wales would require the creation of a regional timetable planning group of skilled practitioners working closely with commercial operators and Transport for Wales (Rail).

The use of 'clock face /standard hour' timetables would make it easy to feed local bus and demand responsive services into the strategic network. This would be of particular value in the evenings and on Sundays when frequencies are reduced even on strategic services.

Examples are given below of how a 'clock face/standard hour' timetable could work at a Principal Interchange (Rhyl) and at a Key Interchange (Mold) in North Wales.

Example 1: Rhyl Interchange (A Principal Interchange)

Standard Hour Timetable for Train and Strategic Services

Minutes Past Hour		Service	Connections
Arrive	Depart		
..55		X51 from Wrexham	Trains to Bangor & Chester, 11, 12
	..55	12 to Llandudno	
..00		11 from Chester	Train to Bangor, X51
..00		12 from Llandudno	Train to Chester, X51
..05		Train from Chester	12, X51
..05		Train from Bangor	X51, 11
	..10	Train to Bangor	
	..10	Train to Chester	
	..15	X51	
	..15	11 to Chester	
	..15	12 to Llandudno	
..20		12 from Llandudno	Train to Chester, X51
..30		11 from Chester	Train to Bangor, X51
..35		Train from Chester	12, X51
..35		Train from Bangor	X51, 11
	..35	12 to Llandudno	
	..40	Train to Bangor	
	..40	Train to Chester	
..40		12 from Llandudno	
	..45	11 to Chester	
	..55	12 to Llandudno	

Such a standard timetable should be supported by comprehensive information, signage and through ticketing.

The principle also works at Key interchanges. This example illustrates how bus services can inter-connect, based on standard 30/60/120 minute frequencies.

Example 2: Mold Bus Station (A Key Interchange)

Standard Hour Timetable (some services may only operate every 2 hours)

Minutes Past Hour		Service	Connections
Arrive	Depart		
..00		4 from Chester	Denbigh, Ruthin, Pantymwyn, Holywell
..00		1 from Ruthin	Chester, Wrexham, Ellesmere Port
..00		14 from Denbigh	Chester, Wrexham, Ellesmere Port
..00		6 from Pantymwyn	Chester, Ruthin, Denbigh, Holywell, EP
..00		126 from Holywell	Chester, Ruthin, Denbigh, EP, Wrexham
..00		27 from Wrexham	Chester, Ruthin, Denbigh, Ellesmere Port
..00		5 from Ellesmere Pt	
	..10	4 to Chester	
	..10	1 to Ruthin	
	..10	14 to Denbigh	
	..10	6 to Pantymwyn	
	..10	126 to Holywell	
	..10	27 to Wrexham	
	..10	5 to Ellesmere Pt	
..30		X4 from Chester	
	..40	X4 to Chester	

c) A high standard of infrastructure: *The North Wales Standard*

The Welsh Government Transport White Paper states:

Bus stop quality is a key influence of the perception of the level of service that can be expected

Clear, high quality and up-to-date information is essential for members of the public

In order for seamless interchange to take place between bus services (and train services where appropriate/applicable) a programme of work should be carried out to bring the infrastructure at each Interchange up to *The North Wales Standard* set out below.

The overall impression from a sample Bus Stop Audit, carried out in one direction on service X4 (see *Appendix 3*), was that bus stop Infrastructure is in a poor condition, with timetable cases empty or vandalised, road markings faded and shelters uncleaned. It confirms the view given by the Managing Director of Arriva Buses Wales, in discussions with him about the regional network. However, there are exceptions to this, eg. Denbighshire maintain a high standard of Infrastructure

It is essential that *The North Wales Standard* set out below becomes 'the norm', if bus services are to be perceived as a high quality alternative to the private car.

The North Wales Standard should be seen as a minimum which can be exceeded, for example by the provision of additional bus shelters.

The *North Wales Standard* can be achieved in one of two ways:

- i)) Service Level Agreements
signed by Local Authorities and funded regionally/nationally
- ii) Management on a regional basis
by either a lead authority, or a regional transport authority.

The North Wales Standard

1. Standards for Bus Stops and Shelters	Bus Stop Category				
	1	2	3	4	5
High quality enclosed waiting shelters	/				
Enclosed waiting shelter		/	/	/	?
Bus Stop with branding	/	/	/	/	/
Clear signing from key locations	/				
Bus stop signage integrated into railway station infrastructure	/				
Covered cycle stands	/	/	/		
Bus stop box markings on highway		/	/	/	/
Raised Kerbs for improved accessibility	/	/	/	/	/
Programme for regular cleaning and inspection	/	/	/	/	/
Contract for repair and maintenance	/	/	/	/	/
Damage will be repaired with 48 hours of being reported	/	/	/	/	/

The North Wales Standard

2. Standards for Information Provision	Bus Stop Category				
	1	2	3	4	5
Real time passenger information screen	/	/	/	/	?
Information about connecting services	/	/	/		
Directions to connection stops (<i>if not the same shelter</i>)	/	/	/		
Paper timetable information clearly displayed	/	/	/	/	/
Bus information provided at railway stations	/				
Details about strategic bus services included in railway timetables	/				
Display infrastructure maintained in excellent condition	/	/	/	/	/
All information provision must be: <ul style="list-style-type: none"> • accurate • kept up-to-date • clear and well presented • highly informative • easy to understand (especially to people unfamiliar with using public transport) • accessible 	/	/	/	/	/
Timetable information will be updated not more than 48 hours before a change and not more than 24 hours after a change	/	/	/	/	/

Individual proposals need to be produced specifically related to each of the Interchanges specified above. As an example, a proposal for Bangor is produced below:

Bangor Bus Station

The Bus Station is a major bus hub for the area.

The bus shelters are not in good condition.

Timetable information is patchy.

There is no working real time passenger information.

Action needed to maximise the potential of the Bus Station:

- Implement the North Wales standard for infrastructure and information at major interchanges

Bangor Railway Station

The station is the busiest stop on the North Wales Coast Railway line.

Departures to Birmingham, Cardiff, Chester, Holyhead (for Ireland), London and Manchester.

It is situated about 800 metres from the Bus Station but connected by frequent services which stop on the main road outside the station.

There is no signage from the station platforms and no bus information in the station.

Some years ago, a bus stop was created within the station curtilage, with an easy pedestrian route from the train platforms. However, it is no longer used.

Bus services passing the station include frequent buses to Caernarfon. There is an aspiration to reopen the railway line from Bangor to Caernarfon.

There is also a direct TrawsCymru service to Aberystwyth offering a faster journey than the train (which is an indirect route via Shrewsbury, involving at least one change of trains).

Action needed to maximise the potential of the Railway Station:

- Implement the North Wales standard for infrastructure and information at major interchanges
- Bring the railway station bus stop back into use and designate as 'Platform 3' with appropriate signage
- Provide signage from other station platforms to/from platform 3

3. Potential Solutions to the Challenges of Rural Areas

It is proposed that a menu of options is produced for local communities to consider, with Local Authority staff trained to offer advice and support on what is involved in being a pilot community.

The Region should employ a dedicated Community/Rural Transport Officer to support and develop community transport schemes and other innovative solutions to rural accessibility.

The following options need to be assessed and then tested in appropriate areas of the region, with the results monitored:

- a) Local Authority Operation of Bus Services
- b) Tendered Service Quality Partnerships
- c) Innovative Solutions for Rural Areas

a) Local Authority Operation of Bus Services

Local authorities elsewhere in the United Kingdom have faced the same problem of a lack of operators, rising prices and poor quality. This has led to some local authorities setting up their own operating units. These include:

<i>Dumfries and Galloway Council</i>	Home-to-school transport and local bus services under section 46 of the 1981 Public Passenger Vehicles Act
<i>Monmouthshire County Council</i>	Hold an "O" licence + section 19 & section 22 permits
<i>Nottinghamshire County Council</i>	Hold an "O" Licence
<i>Lincolnshire County Council</i>	An "arm's length" trading company with an "O" licence
<i>Lancashire County Council</i>	Operate 'Travelcare' as part of the Lancashire County Commercial Group to provide: <ol style="list-style-type: none"> i) specialised transport services for adults and children with special needs ii) Dial a Ride service in Fylde and Wyre - mainly for people with mobility restrictions but services run to a broad route and timetable iii) vehicles with a driver also available for hire to public sector organisations and charitable bodies

In North Wales, Denbighshire County Council set up an operating unit in 2018, to provide home to school transport services to one rural primary school in the County (and linked secondary schools), using minibuses operating under section 22 permits. These buses are then used to operate section 63 local bus services, using the section 22 permits.

Therefore one solution to the lack of operators in the rural parts of the North Wales Region would be for a Regional Transport Authority, or individual local authorities, to set up local bus companies to operate rural bus services as Passenger Transport Operating Units. Under current legislation, there are a three possible ways this can be done:

Options for LA operation of Passenger Transport Operating Unit

j) PSV Operator's Licence

This is the option followed by the majority of providers of local bus services and home to school transport buses. At the moment, the operation of home to school transport has to be the primary purpose of a local authority owned bus company. Section 46 of the Public Passenger Vehicles Act 1981 allows local authorities to use Passenger Carrying Vehicles that are primarily provided for education transport to be used to provide registered local bus services.

This option provides the greatest flexibility in the types of work that vehicles can perform and puts the operation on an equal footing with commercial operators, avoiding claims of unfair competition.

To obtain an Operators Licence, an application has to be submitted to the Traffic Commissioner. An applicant has to demonstrate that they:

- Are of good repute
- Are of appropriate financial standing (ie. have enough money to run the business)
- Have good enough facilities (or arrangements) for maintaining vehicles
- Have a Transport Manager with a current Manager CPC qualification

It should not be a problem for a local authority to satisfy these conditions.

ii) Section 19 Permit operation

Permits were introduced to enable voluntary and non-profit making groups to undertake PSV work without the need for an Operator's Licence. Section 19 Permits may be granted by designated bodies, including local authorities, for the operation of small vehicles (up to and including 16 seats). Permits for large vehicles are issued by the Traffic Commissioner (rather than other designated bodies). Vehicles operated under a Section 19 Permit may be used to carry passengers for hire and reward, provided that:

- The organisation holding the permit operates the vehicles
- They are not available to the public at large
- They are being used non-commercially

The use of Section 19 Permits for local authority transport services has been criticised by commercial operators, and the Department for Transport is expected to issue revised guidelines in the near future which could change how they can be used.

It would therefore be unwise to base a new operation on an interpretation of the existing guidelines for these permits.

iii) Section 22 Permit operation

Section 22 permits are issued by the Traffic Commissioner to a group of persons concerned with the social and welfare needs of a community.

They allow the operation of a local bus service on a non-commercial basis.

The regulations allow buses operating under a Section 22 Permit to be used for other purposes for hire and reward, where this directly assists the provision of a community bus service by providing financial support for it.

Revised guidelines for Section 22 Permit operation are also expected shortly.

This is the current legislative position. However, in recognition of the problems outlined above, and for other reasons, the Welsh Government is proposing to change the legal position of local authorities in connection with the operation of bus services.

A written statement published on 16/03/20 in connection with the Bus Services (Wales) Bill 2020 states:

The Bill will remove the restriction which currently prevents a local authority from running bus services

The reasons given for making this change, outlined in the Welsh Government leaflet “Working together to improve bus services across Wales” are very much related to this problem of a shortage of operators.

If the provisions of this Bill do become an Act, this would enable rural bus services in North Wales which are not 'commercial' to be operated by a public sector authority, solving the problem of a lack of operators.

b) Tendered Service Quality Partnerships

Although Quality Bus Partnerships are usually applied to commercial bus services, it would be possible to extend tendered local bus service contract conditions to become Quality Partnerships, with legal obligations placed on all partners.

This would have the effect of making quality standards clear and enforceable, set out standards for infrastructure and information provision and provide greater certainty over the duration of the contract. Hopefully these standards would encourage more operators into the market and increase quality.

Regional Transport Authority/Local Authority Partner Responsibilities

- Commitment to fund agreed timetable for 5 years
- All services tendered using standard contract template with quality specification
- Sign Service Level Agreement for provision of infrastructure & information provision to agreed *North Wales Standard*
- Develop and implement agreed bus priority schemes specific to each corridor partnership
- Develop and maintain interchanges and stops to agreed *North Wales Standard*
- Analyse performance information for:
 - revenue
 - patronage
 - reliability
- Calculate trends over the operation of the contract, to justify continued operation and show benefits of actions taken
- Calculate penalties and rewards for service operator
- Arrange quarterly Contract Review Meetings

Bus Operator Partner Responsibilities

- Agree timetables to be operated
- Provide vehicles and operate services to the standard specified in Contract Conditions
- Provide the Local Authority monthly with:
 - patronage figures (boarding and alighting details for all passengers)
 - details of all revenue received in connection with the operation of the service
 - reliability and punctuality information
- Accept penalty/rewards scheme in connection with operational performance (*payment of an element of the contract price linked to operational performance*)
- Attend quarterly Contract Review Meetings

The introduction of Tendered Service Quality Partnerships would increase the quality of service provision hopefully leading to increased patronage and could encourage more operators into the market.

c) Innovative Solutions for Rural Areas

Although Covid-19 restrictions mean that current demand for rural bus services is limited, the benefits to those who normally use them are significant. In many cases they provide a lifeline to residents who have no access to a private car.

The traditional model of providing rural bus services (ie a fixed route, served by buses at specific times) is not stimulating demand and is not cost effective. Innovative solutions need to be trialled and a number of pilot schemes are already in place in Wales, or are shortly to be introduced:

- i. Demand Responsive Transport (DRT/IRT)
- ii. Community Transport
- iii. Car Clubs
- iv. Community Car Scheme
- v. Co-ordination of home-school, social services and hospital transport
- vi. Community Use of Commercial Transport

Each of these schemes is described below, together with examples of their application in North Wales.

i) Demand Responsive Transport (DRT / IRT)

Demand Responsive Transport is defined as:

a form of public transport which provides a 'door to door' or 'near door to door' service for dispersed origins and/or destinations of trips

(Companion to Road Passenger Transport History)

A number of DRT services already operate or are in the process of being introduced in Wales:

Bwcabus

Outside of North Wales, Demand Responsive Transport has operated for over ten years in the south west of the country. The Bwcabus network was introduced in 2009, funded by European Regional Development Fund, Welsh Government and local authorities. It operates in North Carmarthenshire, South Ceredigion and Pembrokeshire and comprises a combination of fixed routes, usually only operating on certain days, and demand responsive services which users can pre-book.

Bwcabus is supported by a website, which provides passengers with detailed information on the service, including the location of bus stops, fares and how to book. Passengers have to register and are then able to pre-book their trips using a dedicated telephone booking service. Services operate between 07:00 and 19:00 Monday to Saturday and trips must be booked before 19:00 hrs for travel the following morning or before 11:30 hrs for travel the same afternoon.

Passengers are able to travel between local towns and villages in the Bwcabus zone, or connect with strategic bus or train services for longer journeys. Fares are based on the length of the journey and through tickets onto connecting services are available.

The network has generated '*an overall increase in passenger journeys*'. In 2014 an average of 63 passengers a day were carried.

However the service is expensive to operate and, in 2019/20, there was concern about its continued viability. On 27/02/20, the Minister for Economy and Transport announced that Carmarthenshire County Council would be provided with financial support to maintain the existing network until the end of September 2020, subject to match funding from Carmarthenshire, Ceredigion and Pembrokeshire.

Denbighshire County Council 'Fflecsi' services

Denbighshire County Council operate a number of 'Fflecsi' services, using 8 seat vehicles owned and operated by the County Council.

When introduced in July 2018, they supplemented existing conventional local bus services, operating on days when the ordinary bus service did not run.

For example, the service based on Corwen ran on Monday, Wednesday and Friday when the service 91 conventional bus service ran on Tuesday, Thursday and Saturday. These conventional services have now been withdrawn and completely replaced with DRT.

Journeys can be made anywhere within the specified villages or local centre including to an interchange point for other services. Trips can be made for example to shops, the library, the doctors or the leisure centre. However trips cannot be made to hospital appointments, for education, to public houses, for personal care or to a day centre.

The minibuses are used primarily on home to school transport so travel is only available between 09:00 and 14:45.

Intending passengers need to be registered with the scheme and then book trips up to 15:00hrs on the day before travel. A fare of £2 is charged for a single or return journey. Originally concessionary passes were not accepted but this has now changed.

These services use vehicle and staff resources dedicated to home to school transport which means a shared cost but it also means that local bus journeys cannot be provided at peak times.

Patronage on the DRT service is broadly similar to the previous fixed route services

Welsh Government Integrated Responsive Transport (IRT) Pilot Schemes

On 13th April 2019, the Wales Transport Minister announced funding for pilot projects to test innovative forms of demand responsive bus travel. He stated that this was intended to:

test key aspects of demand responsive bus travel services including the integration of patient and education transport as well as the use of new mobile technology

Three pilots are currently being progressed, each based on different scenarios where IRT could potentially be used effectively. The trials involve:

- Expanding a Community Transport scheme (Pembrokeshire)
- Filling in gaps in the bus service network (Blaenau Gwent)
- Replacing lightly used local bus services (Conwy County Borough Council)

Of the three pilots, the Conwy scheme is the project that will demonstrate conclusively whether DRT can provide an efficient, affordable alternative to conventional tendered local bus services where costs are constantly rising, especially in areas where little or no competition exist. Analysis of the three Welsh Government IRT Pilot Schemes will provide valuable information and data to assist in the planning of the future rural bus network in North Wales.

The Conwy IRT scheme

This scheme will be based on Llanrwst in the Conwy Valley, and involves replacing four lightly used local bus services (section 63 services) with a demand responsive service, operating initially between 07:00 and 19:00 on Mondays to Saturdays, but with the potential to expand hours and introduce a Sunday service.

Service users will need to register to use the service, and once registered can book a journey on-line or by phone. Whilst in theory users could request travel at any time within the operating period, in practice there will be a structure to the operation that gives priority to connecting with bus and rail services at Llanrwst, and fits with opening times of medical facilities and other essential services, as well as encouraging the use of the service for travel to and from work. One of the aims is to encourage use of the service by a wider age group, as the majority of the routes to be replaced have a significant proportion of passengers from older age groups, with very little use being made for work related purposes.

The Conwy IRT will be registered as a 'Flexibly routed local bus service' which allows the specifying of either a departure or arrival time for journeys. This will give some structure but with a large degree of flexibility to the operation of journeys.

The Conwy IRT is currently programmed to be introduced in September 2020. The costs of the service will be met from a combination of Conwy's current bus service budget (using the savings from not operating the 4 section 63 services the IRT will replace) and financial support from the Welsh Government. Given the current uncertainty regarding the period that social distancing measures will remain in force, due to the Covid-19 pandemic, there may be a need to revisit the timetable for converting the section 63 services to IRT.

ii) Community Transport

Community Transport has been defined as:

the provision of transport to those who are unable to transport themselves or access conventional public transport systems. Operations are not profit making and rely heavily on volunteer input, either for driving, management control or both. Many schemes have their roots in vehicle sharing to meet community need.

(Companion to Road Passenger Transport History)

Community Transport can be provided by minibuses driven by paid drivers or volunteers, or by volunteers using their own cars or scheme owned cars. The schemes tend to be for specific groups of people and their reliance on volunteer drivers makes it difficult to provide regular timetabled journeys for access to employment.

There are currently 15 Community Transport Schemes in North Wales which receive funding from the Bus Services Support Grant. In 2019/20 this amounted to approximately £750k. Examples are:

Centre for Independent Living

An organisation based in Porthmadog the purpose of which is:

to support and meet the needs of disabled adults in Gwynedd so that they can make independent and informed choices about their lives

The scheme runs a minibus to help disabled people to get to medical appointments and shopping, and also runs regular services to Ysbyty Gwynedd and Ysbyty Wrecsam Maelor.

South Denbighshire Community Partnership

The partnership is a not-for-profit company and registered charity based in Corwen, whose purpose is:

promoting benefit to the inhabitants of South Denbighshire

The Partnership owns its own vehicles and volunteer drivers provide transport for groups for outings. A dial-a-ride service is offered for trips to appointments, shopping and visits.

Medrwn Mon

Medrwn Mon provide a voluntary social community car scheme on Ynys Mon, available to people over the age of 50, who have no other means of making essential journeys. It is mainly for people in rural areas where public transport services are scarce but also for those in urban areas not fit enough to use public transport. Volunteer drivers use their own vehicles.

Data for Community Transport example schemes

Scheme	No. of Vehicles	Passengers per annum	Miles per annum
Centre for Independent Living	3	12,528	38,340
South Denbighshire Community Partnership	3	4,122	11,365
Medrwn Mon	0*	11,712	105,915

*only uses volunteers' vehicles

iii) Car Clubs

Car clubs have been described as:

an attempt to give people better transport links in rural areas

(BBC Report on Corwen CCS April 2019)

They work by giving members access to use of a car on a short term basis and charging by the hour or by the day. The car can usually be booked on line or by phone and is then unlocked from a designated parking bay in the local community.

It offers the convenience of being able to use a car for those trips which cannot be done by using public transport, walking or cycling. It is of benefit to those able to drive but who cannot afford to own their own car or who do not wish to because their travel habits do not justify it.

There are some drawbacks, however:

- users need to be able to access a central point to pick up the car
- users must have a current driving license
- insurance can be prohibitively expensive especially for under 25's
- a fail safe booking system is needed

Corwen Car Scheme

A community car scheme was started in Corwen in 2018.

It now uses an electric car, making it a zero carbon option.

It is used to make it easier for people to get to job interviews, medical appointments or for shopping.

However, users have to be over 25, making it unavailable for young people who are one of the main groups in need of transport.

iv) Community Car Schemes

A community car scheme is a not for profit organisation, usually run by volunteers, that operates a form of car sharing. Volunteer drivers using their own car and being reimbursed expenses; provide prearranged journeys to members of their community who do not have access to suitable transport. Car schemes will offer travel to essential services such as health appointments, accessing work, shopping or even visiting friends. Some schemes even offer further services such as prescription pick-ups or non-transport related services such as befriending.

(travelsomerset.co.uk)

Car-sharing is when two or more people share a car and travel together. This often happens on an informal basis - 'I'm going to town tomorrow, do you want a lift?' - but many formal car-sharing schemes have been set up across UK, using nationally available planning software from organisations such as 'Liftshare.com'.

Based on the 'Liftshare.com' model, a local community-based car-share scheme in North Wales would be possible:

- Members details would be stored securely in a database
 - only members would have access to the database
 - only members travel information could be viewed by other members of the club
- Members would need to be cleared for relevant convictions
- Car sharers would agree how much to pay for a lift, but providing a lift should not be profit making
- Members could agree standard fares for specific trips

A community based car share scheme would need 'buy in' from members of the designated community, both car owners and non-car owners, via the car-share software:

- Car owners would enter trips they were making
- Non-car owners would enter trips they needed to make
- The software would match offers with needs

Car-share schemes could also be run by major employers or trip attractors such as hospitals.

v) Co-ordination of home-school, social services and hospital transport

Most rural communities are visited on a daily basis by a range of publicly funded vehicles.

These might include:

- a home to school transport minibus (primary and secondary)
- a minibus collecting clients for social services day centres
- transport for medical appointments
- a tendered local bus service, carrying very few passengers
(or in some cases the local bus service may already have been withdrawn)

In practice it is possible that the same contractor is providing all these trips but their operation is not coordinated.

Nationally, it has proved very difficult to bring the funders of services like these together and develop a co-ordinated service that could enable all parties to make financial savings while providing the community with a better service. This should not be impossible however, if there is 'buy in' from all partners.

If all transport arrangements were planned by a single body, and all stakeholders agreed to be flexible with start and finish times, it would be possible to provide for the majority of needs with a single fleet of vehicles

A minibus could be fully employed for a whole day:

- Feeder to secondary home-to-school contract
- Journey to primary school
- Trip to social services day centre
- Hospital/medical appointments
- Local bus service to shopping centre and return
- Return journey from primary school
- Feeder from secondary home-to-school contract
- Return trip from social services day centre

Such an operation could be linked to the creation of local authority owned bus companies.

vi) Community Use of Commercial Transport

Other vehicles also visit rural communities:

- post office delivery vehicle
- supermarket home food delivery vehicle
- parcel deliveries

The vehicles used on these operations could be adapted to enable the carriage of a small number of passengers.

Post buses have previously been a feature of rural passenger transport in the UK, but most only for a relatively short period of time.

Post Buses in UK

The report of the Jack Committee on Rural Transport in 1961 recommended that the General Post Office should consider the possibility of allowing passengers to travel in Post Office vehicles on rural collection and delivery runs.

The first route did not begin operation until February 1967, when a route commenced between Llanidloes and Llangurig in Mid-Wales.

Development was slow until it became possible to claim fuel duty rebate, New Bus Grant and then Rural Bus Grant. In 2000 there were 211 routes in operation but reductions in funding led to the withdrawal of services, the last being withdrawn on 19th August 2017.

The operation of post buses in UK was largely an accounting exercise: funding available made the carriage of passengers economically advantageous, even if very few were carried. Mail delivery and collection was the priority and the operation was based around these fixed requirements, resulting in timetables which did not suit potential passengers.

Post buses are found in a number of European countries but the prime example is Switzerland.

Post Buses in Switzerland

Switzerland has:

869 post bus routes, carrying 140 million passengers, on a 7,375 mile network

Public transport is viewed very differently in Switzerland compared to UK - the Swiss believe that:

the only sensible way to organise public transport services is to achieve the maximum integration between modes

(‘Switzerland without a car’ A Lambert)

The Swiss Post Bus network demonstrates that the collection and delivery of the post and the carriage of passengers can be integrated, if journeys take place at the optimum time for people rather than the historic expectation of the postal service. A North Wales community willing to trial a post bus might have to accept that letters will be collected and delivered at different times from that which they are used to.

Other deliveries take place in rural communities, such as by supermarkets and other delivery companies. Supermarkets promote home deliveries as an alternative to shopping in store. With community ‘buy in’, it would be possible for supermarket deliveries in an area to be focussed on particular days and a couple of seats provided in the delivery van for passengers. There would be marketing benefits for the participating supermarket, in encouraging people to shop with them rather than with a competitor, and a boost to the community support which supermarkets seek to demonstrate.

A system such as this would mark a return to the origins of rural bus services, when local carriers would take a few passengers alongside the produce they were taking to market.

4. Low/Zero Carbon Vehicle Programme

Environmental issues have become the main priority in all policy areas, including transport, although this has been overshadowed recently by the Covid-19 pandemic.

In March 2020, the UK government began the production of a Transport De-carbonisation Plan with a report titled 'De-carbonising Transport – Setting the Challenge'.

In the foreword to the Report, the Right Honourable Grant Shapps MP, Secretary of State for Transport, says:

Climate Change is the most pressing environmental challenge of our time. There is overwhelming scientific evidence that we need to take action. Transport has a huge role to play.

One of the six strategic priorities in the Plan will be the de-carbonisation of road vehicles.

The Welsh Government's own policies support this action. In a press release dated 19th December 2019, Ken Skates AM, the Welsh Government Transport Secretary said:

Tackling the climate emergency requires a radical change in the way we travel.

The same press release stated:

Transport de-carbonisation will be a key theme in the Welsh Government's new transport strategy to be published towards the end of 2020.

In 2016, in the United Kingdom, transport became the largest emitting sector of greenhouse gas emissions in the economy. Other sectors, particularly energy, have been able to reduce emissions, whilst transport emissions have remained static.

It is therefore essential to accelerate modal shift to public and active transport, but also to de-carbonise road vehicles. This is why the Welsh Government Transport Secretary has made a commitment to have a zero carbon bus fleet in Wales by 2028.

a) Options Available for low/zero carbon buses

i) Clean diesel

Traditionally, since the 1930's, most buses have been powered by diesel engines. Since 1992, European Union emissions standards have specified the exhaust emissions for vehicles sold in the European Union.

The latest standard for a diesel engine, introduced in 2013/14, is Euro VI, which produces 1.5 g/kWh of CO₂, compared to 4.5 g/kWh from a Euro I engine.

It will be difficult to reduce this level of emissions further with diesel technology.

ii) Battery-Electric

A battery-electric bus uses an electric motor powered by (usually) a lithium ion battery which is charged using mains electricity. Battery-electric buses produce no tail-pipe emissions and are classified as 'zero emission capable'.

However the way the electricity is generated needs to be taken into account when calculating the 'Well to Wheel' (WtW) real emissions of electric buses. Electricity generated renewably, (eg. solar, wind, hydro) is close to carbon neutral; electricity generated from

fossil fuels has a high emissions footprint which possibly counters any benefits from its use in place of diesel in vehicles.

A restricting factor with battery-electric buses is the mileage range that can be obtained before battery charging is needed, although the technology is developing rapidly, extending range and reducing charging time. Manufacturers of battery electric buses include Optare, ByD, Wrightbus, Alexander Dennis and Irizar.

iii) Hydrogen Fuel Cell

Hydrogen buses are powered by an electric 'powertrain', where fuel cells convert the chemical energy of hydrogen into electrical energy. Hydrogen is stored in compressed tanks on the bus.

These buses produce no tail pipe emissions so the 'Well to Wheel' greenhouse gas emissions depend on how the hydrogen is produced. Production is possible from a variety of methods, including from fossil fuel based industrial processes to electrolysis of water using renewable electricity.

Significant research has been carried out by North Wales Economic Ambition Board on the potential for the use of hydrogen in North Wales (*see details below*). Manufacturers of hydrogen buses include Optare, Wrightbus.

iv) Diesel Electric Hybrid

A hybrid bus combines two power sources in the vehicle drive train – a conventional diesel engine and an electric motor. The engine is designed to produce enough energy to maintain the average power that is needed to run the bus. When the bus needs more energy, as when pulling away from a stop, it draws the extra energy from the batteries and electric motor. The hybrid system enables energy to be recovered during braking and then released to accelerate the vehicle.

Diesel hybrids are currently the commonest form of low emission bus in the UK. Operators report that hybrid buses give a 30% reduction in diesel fuel consumption and a reduction in emissions eg. 30% (*Stagecoach*); 39% (*Oxford Bus Company*), 40% (*Transport for London*). Manufacturers include Wrightbus, Alexander Dennis, Volvo and Optare.

v) 'Plug-in' Hybrid

These are similar to a diesel electric hybrid but are equipped with a large battery which can solely power the bus for a certain distance. The battery can be recharged (plugged in) using mains electricity. Manufacturers include Alexander Dennis and Volvo.

vi) Biomethane

Biomethane is a renewable form of natural gas derived from the anaerobic digestion of organic waste products such as farm slurry and food waste. Biomethane can be used to power buses with a spark ignition engine and storage for biomethane is provided in tanks on the roof of the vehicle.

Large fleets are operated by Reading and Nottingham who claim a 90% reduction in CO2 emissions. Vehicles are manufactured by Scania.

b) Application of Low/Zero Carbon Technology to North Wales

If the commitment made by the Welsh Government to have a zero carbon bus fleet by 2028 is to be achieved, then urgent action is needed.

The two practical options that are currently available for **zero carbon** are hydrogen and battery-electric.

Hydrogen Buses for North Wales

The North Wales Economic Ambition Board and Welsh Government commissioned a Report entitled 'Strategic Hydrogen Opportunities in North Wales' from Advision and Jacobs in February 2020. A progress report was produced in April 2020 which stated:

Low carbon/zero carbon hydrogen is seen by many groups and stakeholders as holding medium to long term potential on the transition to decarbonise...transport

A number of public sector organisations, including Welsh Government and North Wales Economic Ambition Board, are keen to start to develop a hydrogen footprint

The Report considers how a green hydrogen supply could be provided from a facility on Deeside. This would require significant investment but would enable the operation (alongside other users) of a fleet of buses in Flintshire/Wrexham/Denbighshire powered by green hydrogen.

Bus manufacturers are rapidly developing new hydrogen powered buses and in April 2020 major bus manufacturers announced details of new models:

***Optare** have developed a hydrogen fuel cell-electric double deck bus, with a range of 250 miles. They have partnered with a specialist company, Arcola, to produce the fuel pack.*

***Wrightbus** have unveiled fully costed plans to produce 3,000 hydrogen fuel cell-electric buses to be in service by 2024. The new owner of Wrightbus also owns a hydrogen producing company, Ryse.*

Vehicles from either of these companies would be suitable for the operation of the four Strategic Bus routes in North East Wales, using green hydrogen produced on Deeside:

1	Wrexham – Chester
4/X4	Mold – Chester
11	Rhyl – Chester
12	Rhyl – Llandudno

Electric Buses for North Wales

In 2017, Denbighshire County Council was offered an award of £500,000 by Department for Transport for the purchase of four electric buses, to be used on local bus services in the centre of the county.

A trial took place on the selected routes, with a single Optare Solo electric demonstrator, which established that none of the routes selected were suitable for electrification. As a result, the award of the grant was not taken up. The principal issues were:

- insufficient range from the batteries to cover a days work
- lack of local depots where charging could take place

Despite advances in the technology since 2017, the maximum range is still only 125-155 miles between charges. For intensive use on a Strategic route (eg. *Rhyl – Llandudno*), it is unlikely this would be sufficient without the use of additional buses - which would not be cost effective. However, on more rural routes, where buses are used less intensively, the Denbighshire trial shows that electric buses such as the Optare Solo could be utilised.

As a result of the findings of the trial, Denbighshire County Council recently submitted a bid to Welsh Government Ultra Low Emission Vehicle Transformation Fund, for five electric powered 16 seat service buses. These were to be operated in the Denbighshire County Council fleet, on deep rural bus services in the Ruthin/Clawddnewydd area of the county. Unfortunately, this bid to Welsh Government was not successful. The operation would have provided valuable experience on the use of such technology across the rest of rural North Wales.

The key to delivering genuine 'Well to Wheel' zero emissions with electric buses is to identify a source of renewable electricity for charging. Rural North Wales has plentiful supplies of wind, solar and hydro electric generation, which could power a fleet of electric buses for use on local, town and rural bus services.

c) Funding of Zero Carbon Buses

Until demand for zero carbon buses increases, there will be a significant price penalty compared to the purchase of a conventional diesel powered bus. This means that the commercial case for operators to commit to new technology cannot and will not be made unless there is a funding contribution by the public sector. In recent years various Green Bus Grants have been given to facilitate the purchase of low emission buses. In the 1970's and 1980's, to enable a rapid move to one person operation, the government provided bus grants for new buses.

A cheaper option as a transition towards zero carbon could be the use of bio-methane powered buses as used for example by Reading and Nottingham (see above).

During the second world war, 'utility' vehicles of approved design were ordered by the Government and allocated to bus operators. This policy should be replicated today. If the Welsh Government co-ordinated action across Wales, an order for 500 electric or hydrogen powered buses could be placed. This would give manufacturers certainty of numbers and the volume of production which would reduce the price. They could then be allocated or sold to operators/areas at a price comparable with a diesel bus.

Covid-19

The Covid-19 pandemic and the on-going response to it provides a challenge to the future operation of bus services. Social distancing has been described as:

'the death knell for public transport'

(Chartered Institute of Logistics and Transport May 28th 2020)

The general public are being urged to avoid buses and trains whilst at the same time, the government is persuading bus operators to restore pre-Covid levels of service.

The recommendations contained in this Strategy have to be considered in the light of the current position and the potential reaction of passengers to future social distancing, and fears of a second wave of the virus.

Issues to consider are:

- Reluctance to use bus services for fear of contracting the virus
- Need to reduce the capacity of buses to meet social distancing rules. This could mean 10 people on a double-deck bus; 4 people on a full size single-deck bus and 2 people on a minibus
- Economics of providing bus services on a commercial basis with carrying potential drastically reduced
- Requirement to prioritise travel to school/college at peak times to ensure students can get to their place of education
- Making all bus services 'demand responsive' with a requirement for all passengers to book in advance to control capacity
- Cost to the public purse of funding a supported network that is likely to be expanded if the current network is to be maintained
- Creation of a de-carbonised transport network in a scenario where public transport use is discouraged and car use is promoted

It is understood that proposals are being considered to revise the way bus services are governed and managed in Wales post Covid-19. This will not alter the need to progress the recommendations of this Strategy document to:

- Improve, install and maintain Infrastructure and Information Provision
- Provide bus priority
- Test innovative ways of providing bus services
- Incentivise the introduction of zero carbon buses.

Work Programme

1. Regional Bus Network:-Work Programme

The recommendations for the North Wales Regional Bus Network can be implemented through a programme of work, which is described below.

Work Programme for Strategic, Core, Local & Town Services

(Work Programme for Other Services dealt with in '2. Rural Areas: c) Innovative Solutions' below)

a) Timetabling

Timetabling to be done in a holistic way, that considers the network as a whole

Strategic Services

- Agreement of connections at Principal and Key Interchanges, between trains and Strategic bus services, including TrawsCymru
- Timetables for commercial services to be agreed with operators
- Confirmation of de-minimis payments for additional journeys and tendered elements
- Commitment to maintain de-minimis funding for 5 years
- Agreement that timetables will be changed only after discussion with all stakeholders, and at agreed dates in the year

Core Services

- Agreement of locations where Core services connect with Strategic services
- Commercial services:
 - Local authority to work with operators to ensure Core services connect with Strategic services at designated interchanges
 - Confirmation of de-minimis payments for additional journeys and tendered elements
 - Commitment to maintain de-minimis funding for 5 years
- Tendered services:
 - Local authority to ensure timetables for Core services connect with Strategic services at designated interchanges
 - Tendered Service Quality Partnership to be signed
- Agreement that timetables will be changed only after discussion with all stakeholders, and at agreed dates in the year

Local & Town services

- Agreement of locations where Core services connect with Strategic services
- Tendered services (the majority of these services)
 - Local authority to produce timetables which connect with Core and Strategic services at designated interchanges (the majority of these services will be tendered)
 - Tendered service Quality Partnership to be signed
- Agreement that timetables will be changed only after discussion with all stakeholders, and at agreed dates in the year

b) Fares and Ticketing

All operators to commit to:

- Fare increases only after discussion and justification with local authority/regional transport authority
- Fares changes only on two agreed dates each year
- Provision of cashless fares using:
 - mobile phones
 - contactless cards
- Multi-modal and network ticketing

Fare levels:

- to be set by operators for commercial services
- to be set by tendering authorities for tendered services, to a standard scale based on mileage and agreed for the region

c) Infrastructure (Bus stops, Interchanges, Bus priority measures)

Audit all bus stops to identify:

- Which level each stop belongs to in the Categorisation of Interchanges and Bus Stops
- Work required to bring each stop up to the *North Wales Standard*
- Produce a programme of work to:
 - bring each stop up to the required standard
 - bring each Interchange up to the required standard (see Bangor example pxx)
- Identify bus priority measures and highway improvements which would improve the punctuality, reliability and image of the service

This will enable:

- a bid for funding to be quantified
- Service Level Agreements for each route to be produced

(An example Bus Stop Audit is included as Appendix 3)

d) Information Provision

Use the Audit of Stops to:

- Identify the work required to bring each stop up to *The North Wales Standard*
- Implement a programme of work to meet the *The North Wales Standard*

e) Service Level Agreements

To ensure a high standard of bus stop infrastructure is maintained, each Local Authority to sign a Service Level Agreement:

- backed by a committed funding agreement from Welsh Government
- with rewards and penalties informed by Key Performance Indicators
- with a regular independent audit

(An example Service Level Agreement is included as Appendix 1)

f) Quality Partnerships

Implement a programme of Quality Partnerships:

- linked to the improvement of Strategic services
- backed by a legal agreement between the operator and local authority/regional transport authority

(An example of how a Quality Partnership would be delivered is given in Appendix 2)

g) Funding Bids

- Produce a costed programme of work for each route, covering Infrastructure and Information Provision, for submission as a bid for funding
- Include the financial support of Service Level Agreements with local authorities for the inspection, maintenance and updating of infrastructure and information, should be included

2. Solutions to the Challenges of Rural Areas: Work Programme

The Strategy section suggests a number of solutions to the challenges for bus operation in the rural parts of North Wales. Where these solutions are already in place, they should be assessed and the results analysed. Where the proposed solution has not been tried, pilot schemes should be introduced.

a) Local Authority Operation of Bus Services

Denbighshire County Council has its own bus operating unit providing home to school contracts and local bus services.

- Carry out a full analysis of the costs and benefits of this operation, including the legislation which allows the operation to take place
- Subject to the results of this analysis, extend this 'in-house' operation to other parts of the region where there is a lack of competition for supported bus services
- Set quality standards for the operator and monitor adherence to these standards

b) Tendered Service Quality Partnerships

- Control costs and support operators, in order to maintain quality standards
- Agree and implement a Tendered Service Quality Partnership contract as services are re-tendered

c) Innovative Solutions

- Identify areas not served by Strategic, Core, Local or Town services.
(The Categorisation of Services on pages 11-17 will assist in this process)
- Appoint a dedicated Community/Rural Transport Officer to:
 - Support and develop community transport schemes
 - Act as advocate for pilot schemes
 - Encourage communities to participate
 - Determine which option is appropriate and acceptable to each community
- Implement a series of pilot schemes *(see pages 37-44)*
 - Demand Responsive Transport
 - Community Transport
 - Social/Community Car
 - Formal Car Share Scheme
 - Co-ordination of school/social services/hospital transport
 - Community use of commercial transport

These could be existing schemes or new initiatives, but a full evaluation and assessment will be carried out, to enable the effectiveness and cost/benefit of each option to be determined.
- Based on the results of the pilot schemes, there could be a roll out of appropriate schemes across the region

3. Low/Zero Carbon Vehicles: Work Programme

- Develop a programme for introducing hydrogen powered buses for Strategic services, linked to the Quality Partnership programme
- Identify services suitable for the economic operation of electric buses and develop a programme for rural services, linked to Tendered Service Quality Partnerships
- Operate bio-gas powered buses, as an interim measure towards zero carbon, using locally produced methane.
This would reduce emissions significantly at a reduced capital cost compared to hydrogen or electric
- Explore ways of funding these programmes, until the cost of zero carbon buses becomes comparable with diesel powered buses
eg. The Welsh Government could be approached to co-ordinate action across Wales to order 500 electric or hydrogen powered buses. This would give manufacturers certainty of numbers and the volume of production which would reduce the price. They could then be allocated or sold to operators/areas at a price comparable with a diesel bus.

Appendix 1: Example Service Level Agreement

DATE

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Service Level Agreement between *Conwy Council*
and the Welsh Government/Transport for Wales/Regional Transport Authority

This Agreement covers the installation and maintenance of Bus Stop Infrastructure and Information Provision, in connection with Strategic bus services, at the following locations:

1. The Principal Interchanges

Llandudno

2. The Key Interchanges

Colwyn Bay

3. The Small Interchanges

Conwy

4. Village Centres

All villages in Conwy

5. Other Bus Stops

All other bus stops in Conwy

Service Level Agreement between *Conwy Council*
and the Welsh Government/Transport for Wales/Regional Transport Authority

This Agreement records the commitment by all parties that **The North Wales Standard** will be applied at all of the above locations, as follows:

The North Wales Standard 1. Standards for Bus Stops and Shelters	Bus Stop Category				
	1	2	3	4	5
High quality enclosed waiting shelters	/				
Enclosed waiting shelter		/	/	/	?
Bus Stop with branding	/	/	/	/	/
Clear signing from key locations	/				
Bus stop signage integrated into railway station infrastructure	/				
Covered cycle stands	/	/	/		
Bus stop box markings on highway		/	/	/	/
Raised Kerbs for improved accessibility	/	/	/	/	/
Programme for regular cleaning and inspection	/	/	/	/	/
Contract for repair and maintenance	/	/	/	/	/
Damage will be repaired with 48 hours of being reported	/	/	/	/	/
The North Wales Standard 2. Standards for Information Provision	Bus Stop Category				
	1	2	3	4	5
Real time passenger information screen	/	/	/	/	?
Information about connecting services	/	/	/		
Directions to connection stops (<i>if not the same shelter</i>)	/	/	/		
Paper timetable information clearly displayed	/	/	/	/	/
Bus information provided at railway stations	/				
Details about strategic bus services included in railway timetables	/				
Display infrastructure maintained in excellent condition	/	/	/	/	/
All information provision must be: <ul style="list-style-type: none"> • accurate • kept up-to-date • clear and well presented • highly informative • easy to understand • accessible 	/	/	/	/	/
Timetable information will be updated not more than 48 hours before a change and not more than 24 hours after a change	/	/	/	/	/

Appendix 2: Example Action Plan for Quality Partnership

DATE

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Quality Partnership Action Plan for Service 11

Rhyl – Prestatyn – Holywell – Flint – Shotton – Queensferry – Chester

Partners:

Arriva Buses Wales

Flintshire County Council (Officers for public transport, traffic, parking enforcement)

Denbighshire County Council (Officers for public transport, traffic, parking enforcement)

Transport for Wales

This Quality Partnership Agreement is for a period of 5 years
A Review will take place in year 5, with the intention of signing a new Agreement for a further 5 year period

The Partners agree to a Programme of Work based on the following:

1. Timetabling

- Agree optimum timetables for:
 - Monday – Friday peak-times
 - Monday – Friday daytimes
 - Saturday day-time
 - Sunday day-time
 - Evenings
- Negotiate and agree funding required to provide this timetable
- Prioritise connecting services and design timetables to optimise connections
- Provide current timetables on all web-sites and journey planners
- Make paper timetable leaflets in a standard North Wales style widely available
- No timetable changes to be made without agreement of all Partners
- Make timetable changes on only two specified dates each year (linked to train timetable change dates), unless all Partners agree in special cases

2. Fares and Ticketing

- Agree a standard suite of tickets, easy to understand and offering value for money
- Make available advance purchase tickets, via apps, mobile phones, etc
- Make contactless purchase available on all buses
- Commit to developing multi-modal tickets with TfW (Rail)
- Agree fares and change these only with agreement of all Partners

3. Interchanges and Bus Stops

- Audit all stops on the 11 route
- Produce costed proposal to reach *The North Wales Standard* for all stops
- Sign Service Level Agreements with local authorities to provide, inspect and maintain infrastructure
- Implement *The North Wales Standard* for all stops on 11 route
- Implement site specific improvements at the Key Interchanges:

Site specific improvements at Rhyl Interchange

Rename Rhyl Railway Station and Rhyl Bus Station as Rhyl Interchange
Create signed walking route between bus and train platforms & emphasise Interchange entrances
Add service 11 departure times to rail passenger information screens
Include service 11 times in paper rail timetable displays on train platforms
Include train departure times on 'next stop' announcement for Rhyl Interchange on service 11 buses
Produce information leaflet with train & route 11 timetables

Site specific improvements at Prestatyn Interchange

Provide signed walking route between Bus Station and Railway Station
Install new high quality bus shelters
Provide 'easy to understand' bus information at Railway Station
Produce information leaflet with train & route 11 timetables

Site specific improvements at Shotton Interchange

Improve signage from service 11 bus stops to station platforms, with clear information on where each train service departs
Add service 11 departure times to passenger information screens in Railway Station
Include service 11 departure times in paper timetable displays in Railway Station
Include train departure times on 'next stop' announcement for Flint Interchange on service 11 buses
Produce information leaflet with train & route 11 timetables

Site specific improvements at Flint Interchange

Utilise Evans Street, Y Farchnad and Market Square as a 'uni-directional' loop for all buses, with Y Farchnad being 'Buses Only'
Install high quality bus shelters and designate as 'Platform 3'
Create signed walking route between 'Platform 3' and train platforms
Add service 11 departure times to passenger information screens in Railway Station
Include service 11 departure times in paper timetable displays in Railway Station
Include train departure times on 'next stop' announcement for Flint Interchange on service 11 buses
Produce information leaflet with train & route 11 timetables

4. Vehicle Quality

- Agree vehicle specification, with the aim of providing a high standard of comfort and space, appropriate to the length of the route. Specification to include:
 - Display for service number, final destination & intermediate locations
 - in Welsh and English
 - front, side and rear of vehicle
 - Route branding for the service
 - Wi-fi and phone charging facilities
 - Audio and visual 'next stop' announcements
 - 2+1 seating (*to address social distancing concerns following Covid-19*)
- Agree date for introduction of zero carbon buses

5. Performance Indicators

Agree a series of

SMART (Specific, Measurable, Achievable, Relevant, Time limited)
Key Performance Indicators (KPIs) for each Quality Partnership

Presentation of these KPIs and discussion and action on the results should be a main agenda item at the quarterly Quality Partnership Delivery Group meeting.

The following tables give examples of Performance Standards and KPIs for Partners: Local Authorities, Train Operators and Bus Operators

Local Authority Standards and KPIs

Performance Standards: Infrastructure and Information	KPIs
Complete audit of all infrastructure to be carried out each quarter	<i>Number of infrastructure audits carried out in previous quarter</i>
100% of locations to meet <i>The North Wales Standard</i>	<i>% of locations meeting The North Wales Standard</i>

Train Operator Standards and KPIs (when appropriate)

Performance Standards: Information	KPIs
All Interchange stations to have bus service information and signage	% of Interchange stations with bus service information and signage
All Interchange stations to have stocks of bus timetables available for customers	% of Interchange stations with stocks of bus timetables

Bus Operator Standards and KPIs

Performance Standards:	KPIs
a) Journeys	
99% of journeys to operate	<i>% of journeys operated</i>
90% of journeys to operate on time or no more than 5 minutes late at specified destinations	<i>% of journeys operated to within 5 minutes of scheduled time at specified destinations</i>
98% of journeys to be operated by correct vehicles	<i>% of journeys operated by correct vehicles</i>
99% of journeys to be operated by buses with working next stop audio/visual announcements	<i>% of journeys operated by buses with working next stop audio/visual announcements</i>
b) Bus Drivers	
100% of journeys operated by drivers in uniform	<i>% of journeys operated by drivers in uniform</i>
All drivers allocated to service to receive customer care training	<i>% of drivers with customer care training</i>
c) Complaints	
Maximum 5 complaints received per 1,000 miles operated	<i>Number of complaints received per 1,000 miles operated</i>
100% of complaints responded to in 5 working days	<i>% of complaints responded to within 5 working days</i>

Appendix 3: Example Bus Stop Audit

Bus Stop Audit: Service X4 Mold – Chester

Bus Stop	Category	Existing Infrastructure	Work Required
Mold Bus Station	1	High quality enclosed waiting shelters Bus stops with branding Covered cycle stands Paper timetable info	Clear signage Cleaning and Inspection Repair and Maintenance RTP Information Information on connections Directions to connecting stops
Wood Green	4	Bus stop plate Paper t/t information	Bus stop box Raised kerbs Cleaning and Inspection Repair and Maintenance RTP Information
Bryn Offa	4	Bus stop plate	Paper t/t information Bus stop box Raised kerbs Cleaning and Inspection Repair and Maintenance RTP Information
Griffin Inn	4	Open shelter Bus stop plate Paper t/t information Raised kerbs	Bus stop box Cleaning and Inspection Repair and Maintenance RTP Information
Bod Offa Drive	4	Open shelter Raised kerbs	Paper t/t information Bus stop plate Bus stop box Cleaning and Inspection Repair and Maintenance RTP Information
Pren Hill	4	Open shelter Bus stop plate Bus stop box Paper t/t information Raised kerbs	Cleaning and Inspection Repair and Maintenance RTP Information
Bistre Close	4	Bus stop plate Paper t/t information	Bus stop box Raised kerbs Cleaning and Inspection Repair and Maintenance RTP Information
White Lion	4	Bus stop plate Paper t/t information	Bus stop box Raised kerbs Cleaning and Inspection Repair and Maintenance RTP Information

Buckley Cross	2	Open shelter Bus stop plate Paper t/t information Bus stop box Raised kerbs	Connecting services Information Covered cycle stands Cleaning and Inspection Repair and Maintenance RTP Information
Mill Lane Surgery	4	Bus stop plate Paper t/t information	Bus stop box Raised kerbs Cleaning and Inspection Repair and Maintenance RTP Information
Hawkesbury Road	4	Bus stop plate Paper t/t information	Bus stop box Raised kerbs Cleaning and Inspection Repair and Maintenance RTP Information
Belmont Crescent	4		Cleaning and Inspection Repair and Maintenance RTP Information
Liverpool Road Post Office	4	Open shelter Bus stop plate Paper t/t information	Bus stop box Raised kerbs Cleaning and Inspection Repair and Maintenance RTP Information
St. Matthews Park	4	Bus stop plate Paper t/t information	Bus stop box Raised kerbs Cleaning and Inspection Repair and Maintenance RTP Information
Red Lion Inn	4	Open shelter (old concrete) Bus stop plate Paper t/t information	Bus stop box Raised kerbs Cleaning and Inspection Repair and Maintenance RTP Information
Smithy Lane	4	Bus stop plate	Paper t/t information Bus stop box Raised kerbs Cleaning and Inspection Repair and Maintenance RTP Information
Dovey Cottages	4	Open shelter Bus stop plate Paper t/t information	Paper t/t information Bus stop box Raised kerbs Cleaning and Inspection Repair and Maintenance RTP Information

Hawarden High School	4	Open shelter Bus stop plate Paper t/t information (stop in lay-by)	Raised kerbs Cleaning and Inspection Repair and Maintenance RTP Information
Boars Head	4	Bus stop plate (stop in lay-by)	Paper timetable information Raised kerbs Cleaning and Inspection Repair and Maintenance RTP Information
Carlins Park	4	Bus stop plate (stop in lay-by)	Paper timetable information Raised kerbs Cleaning and Inspection Repair and Maintenance RTP Information
Crown and Liver	4	Open shelter Bus stop plate Paper t/t information Bus stop box Raised kerbs	Cleaning and Inspection Repair and Maintenance RTP Information
Hawarden High School	4	Open shelter Bus stop plate (stop in lay-by)	Paper timetable information Raised kerbs Cleaning and Inspection Repair and Maintenance RTP Information
Hawarden Station	4	Open shelter Bus stop plate Paper t/t information Bus stop box	Raised kerbs Cleaning and Inspection Repair and Maintenance RTP Information Bus information in station Directions to/from station
Glynne Arms	3	Enclosed shelter (old) Bus stop plate Paper t/t information Bus stop box	Raised kerbs Cleaning and Inspection Repair and Maintenance RTP Information
Raikes Lane	4	Bus stop plate (stop in lay-by)	Paper timetable information Raised kerbs Cleaning and Inspection Repair and Maintenance RTP Information
Manor Lane/Main Road	4	Bus stop plate Paper t/t information Raised kerbs (lay-by stop)	Cleaning and Inspection Repair and Maintenance RTP Information

Manor Lane	4	Bus stop plate Paper t/t information	Bus stop box Raised kerbs Cleaning and Inspection Repair and Maintenance RTP Information
Arriva Depot	4	Bus stop plate	Paper timetable information Bus stop box Raised kerbs Cleaning and Inspection Repair and Maintenance RTP Information
Wood Lane	4	Bus stop plate Paper t/t information	Bus stop box Raised kerbs Cleaning and Inspection Repair and Maintenance RTP Information
Airbus	4	Open shelter Bus stop plate Paper t/t information Raised kerbs	Bus stop box Cleaning and Inspection Repair and Maintenance RTP Information
Broughton Retail Park	2	Open shelters Bus stop plates Paper t/t information Bus stop box Raised kerbs	Covered cycle stands Connecting services Information Directions to connection stops Cleaning and Inspection Repair and Maintenance RTP Information

North Wales Metro Bus Integration

Phase 1: Current State Assessment

EXECUTIVE SUMMARY

15th July 2020



Executive Summary

Current State Assessment

The preliminary study of the current bus system has focused on bus passengers' perspectives and on the performance of elements of the overall bus system as outlined in Figure 1.

Bus Users: Enhancing services for existing passengers and attracting additional passengers are key objectives. It should be recognised that non-bus users are far more numerous than bus users and attracting them to use buses will require more than a Business-as-Usual approach.

Bus System Components: Bus services are made up of a range of components parts – all of which need to interact and combine to create a holistic 'offer' to passengers.

Cross-cutting Themes: All of the components will need to be improved to contribute to addressing the North Wales Metro aspirations of Integration, Innovation, and Decarbonisation. Stakeholder engagement will also be a key theme in developing the North Wales Metro programme.

For the purposes of this preliminary review, a qualitative summary assessment of the current state of the bus system elements in North Wales is indicated on a Red, Amber or Green (RAG) scale (based on a qualitative comparison with best practice examples elsewhere in the UK and overseas).

- **R** Not in line with best practice. Significant change required to improve bus services and address cross-cutting themes.
- **A** Minor improvement needed, or significant change in a defined area to meet best practice. Changes required to improve bus services and address cross-cutting themes.
- **G** Good example of best practice. None or limited change required to improve bus services and address cross-cutting themes.

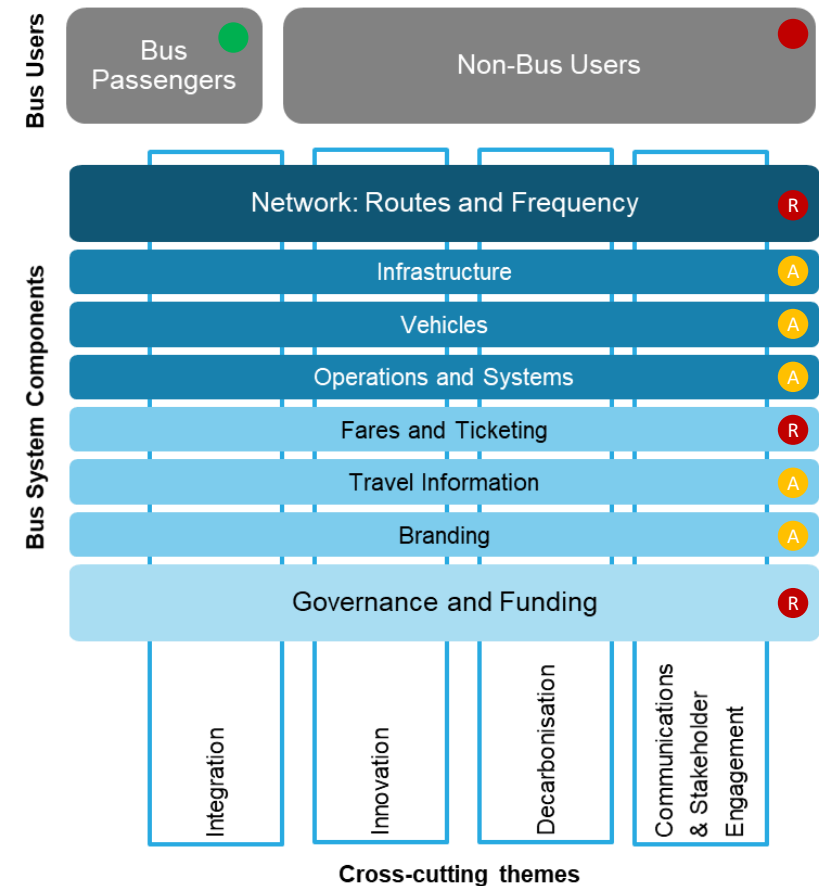


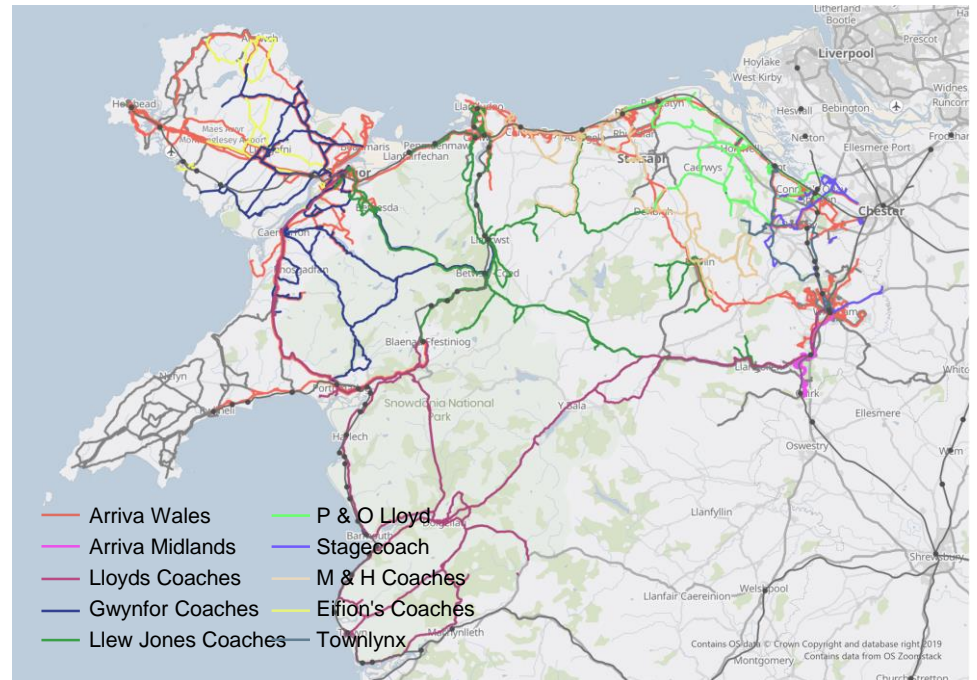
Figure 1: Bus System Elements and Strategic Themes

Executive Summary

Current State Assessment: Current Services (2018-19)



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Weekday Frequency

- 15 mins or less
- 15 – 30 mins
- 30 – 60 mins
- 60 +

No.	Route Type	Weekly Kilometres	Proportion
1	Arriva	321,500	57%
2	Lloyds Coaches	53,500	10%
3	Gwynfor Coaches	36,500	6%
4	Llew Jones Coaches	23,000	4%
5	P & O Lloyd	20,000	4%
6	Stagecoach	15,000	3%
7	M & H Coaches	14,500	3%
8	Eifion's Coaches	11,000	2%
9	Townlynx	10,500	2%
10	Other operators (24)	56,330	10%

Executive Summary

Current State Assessment: Initial Findings (1)

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Bus Passengers

RAG: **G**

- Overall satisfaction amongst **existing customers** is good at 89%. Value for money, information and journey times/reliability are key **concerns** for passengers that are not satisfied.
- A **high proportion of passengers** use the bus because they have no **alternative** and tend to use the bus regularly.
- **79% of bus passengers do not have access to a car**. This compares with 20% of all residents in North Wales with no car access.
- **Concessionary users** make up around half of all passengers, and are much more satisfied than younger users, which reflects the often circuitous routings to maximise coverage but which makes bus journey times slower which dissuades time-sensitive passengers.

Infrastructure

RAG: **A**

- There are over **5,500 bus stops** in North Wales (25% urban, 75% inter-urban/rural; many are in good condition, Bus stations are generally well laid out.
- However, **many bus stops are often in poor condition and are inconsistent** across networks. Upgrade of bus stops is generally carried out on an ad-hoc basis where funding is identified for an improvement scheme.
- Waiting and ticketing arrangements mean that **passengers often wait for one another to board/alight/pay** resulting in delay and exposure to weather - compared to urban bus systems in Europe which generally allow passengers to pre-pay for tickets and board immediately via multiple doors (which is a particular benefit to disabled passengers).
- Traffic congestion in some urban corridors **slows down bus services and adds to operational costs**. This impacts the ability of services to attract passengers as journey times and reliability are highlighted as an issue for passengers.

Attracting Non-Bus Users

RAG: **R**

- Journey-to-work mode share on some urban corridors is at 20% - 30% which shows that bus can be attractive for journeys at or under 40-50 minutes.
- Mode share of bus in Wales is low at an average of 32 trips per inhabitant per annum (about 3% overall mode-share in North Wales), and has been declining by 1.4% / yr. This can be divided down to 54 trips per +60 years age inhabitant, and 23 trips per <60 inhabitant.
- Government and operator spending is often channelled into upgrades on **single routes or corridors** (e.g. Wi-Fi on board, bus stop upgrades) rather than fundamentally addressing **network connections** and co-ordination i.e. focus is on marginal improvements for existing passengers, which will not deliver a step change in patronage.

Vehicles

RAG: **A**

- Average age of buses is 11 years, compared to typically 7-8 years in other parts of UK. Arriva have commented that investment has been withheld due to uncertainty e.g. Bus Services (Wales) Bill.
- Almost all buses are diesel fuel, very few ultra low emission vehicles. Operator depots are not equipped for change to ultra low emission vehicles.
- There are around 450 buses in North Wales. Buses are generally single decker buses with a single double door at the front of the bus. Boarding is via a **single door with every passenger paying the driver** – which slows down journeys (and adds operating cost) and dissuades new customers.

Network: Routes and Frequency

RAG: **R**

- Journey-to-work patterns across modes are **focussed on the 5 'Metro hub' localities** (supporting the importance of these local bus networks).
- Provision is focused on **individual service lines** with little of no co-ordination between services in terms of timings, especially in the evenings.
- The household catchment within 600m of bus stops is high at around 90%; **however, high catchment does not necessarily lead to high usage** as this depends on service frequencies and range of *practical* destinations
- There are very few 'turn-up-and-go' frequency services (i.e. every 12 minutes or better). The main services are generally operated at 20 – 60 minutes resulting in some **high frequencies on major corridors where services converge**.
- Local authorities (tendered routes) and operators (commercial routes) tend to make incremental changes to existing services and routes over time, which **does not provide the stability necessary for long term growth**.
- Very low levels of passengers changing between bus and rail (1%) reflecting poor co-ordination and ticketing integration across modes.
- The networks are mainly focused on journeys to and from the town centres – and hence **do not form a good connection between residential areas and major edge of centre employment areas** e.g. Wrexham Industrial Estate (700 jobs) has limited bus connectivity.

Executive Summary

Current State Assessment: Initial Findings (2)

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Operations and Systems

RAG: A

- North Wales has around **25% of the total bus vehicle kilometres** in Wales, dominated by Arriva, who operate **57% of all vehicle kilometres**.
- Over half of annual bus mileage is on routes which are **partially subsidised** i.e. commercial in the daytime with operators paid to operate buses in evenings / Sundays
- In 2018 only **16 services** were fully commercial; whereas around **160 services** were supported by local government

Route Type	Weekly Km	%
Commercial	75,500	13%
Partially Subsidised	339,500	60%
Wholly Subsidised	146,500	26%

Branding

RAG: A

- Bus governance means that **branding is left to operators**, some of whom create a 'brand' while others have limited investment in marketing.
- This fragmented and inconsistent approach to branding is in conflict with the need to gain passengers' trust (in particular for journeys with two or more legs) – which is **essential if people are to make a lifestyle choice to use buses** on a regular basis.
- Attracting passengers to use bus services as a 'network' requires the bus network to be **presented and marketed as a single network** rather than individual services.

Fares & Ticketing

RAG: R

- Value for money is perceived poorly amongst fare payers in North Wales, and concessionary users are also much more satisfied than younger users.
- Ticketing is not integrated between different operators which significantly reduces the range of destinations for passengers and creates confusion.
- Very little connection and co-ordination between local buses, inter-urban buses (e.g. Traws Cymru), and rail services. There are no integrated network wide bus tickets - and PlusBus is can only be bought on rail services.
- The lack of integrated ticketing is a major barrier to adopting bus travel as a regular lifestyle choice.

Travel Information

RAG: A

- Travel information is provided in an **inconsistent manner by operators**, is not presented on a 'network' basis, and **without information on connections** to other services, rail and Active Travel links.
- The **lack of network maps** makes it very difficult for potential new bus users to understand which journeys could be made. In particular it is difficult to understand where and how to transfer between services.
- There is a **complex service numbering system** which is difficult to understand for potential users e.g. there are two No. 5 services operated by different companies in Wrexham.

Governance and Funding

RAG: R

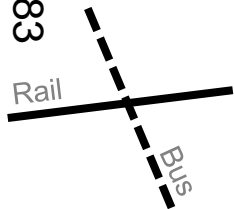
- Only **13% of network kilometres operated are commercial**, with the other 87% relying on S63 contracts and de-minimus funding.
- Over **2/3rds of overall revenue is provided by Welsh Government and Local Authorities** (including Concession Fare reimbursement). Concession Fare reimbursement contributes more to overall revenue than conventional fares.
- There is a strong influence of regulatory arrangements on the ability to operate a co-ordinated and 'unified' network in North Wales (and elsewhere in the UK). Research on this topic underlines that "*good network planning can make a very significant contribution towards efficient use of resources and high quality service to the passengers*".
- Current regulatory arrangements mean a lack of overall planning, which creates inefficiencies and shortfalls, summarised as follows:
 - The **inefficient** use of bus resource with **duplication and lack of co-ordination** on some corridors;
 - **Limited Origin-Destination Trips** available by Bus, mainly limited to destinations on single bus routes due to **poor provision for transfer**;
 - **Difficulty of introducing fully integrated ticketing** in a competitive market. Regulatory arrangements effectively creates a barrier to allowing passengers to use buses as a holistic network;
 - **Fragmentation of the bus sector** with a variety of different organisations responsible for elements of bus systems;
 - **Instability of the Network** - perpetual change of bus networks, either due to operators needing to adjust or delete services to modify their costs, or due to local authorities' tendency to procure short-term one or two-year tenders for subsidised services. This lack of stability seriously impedes the trustworthiness and attractiveness of the bus service as a reliable and long-term network.
 - **Complex network** with large number of individual services, operated by a variety of private operators, with non-intuitive numbering system. Network maps are not provided, and it is noted that transfer opportunities between services are not identified.

North Wales Bus Network Approach

A passenger-centric approach is needed to make bus suitable for a wider number of journeys and user groups. This can be achieved by establishing local ‘journey-to-work’ networks focused on the core urban centres, a regional network of bus and rail services, and rural and feeder services, with co-ordination and interchange between services.



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Local Bus Networks

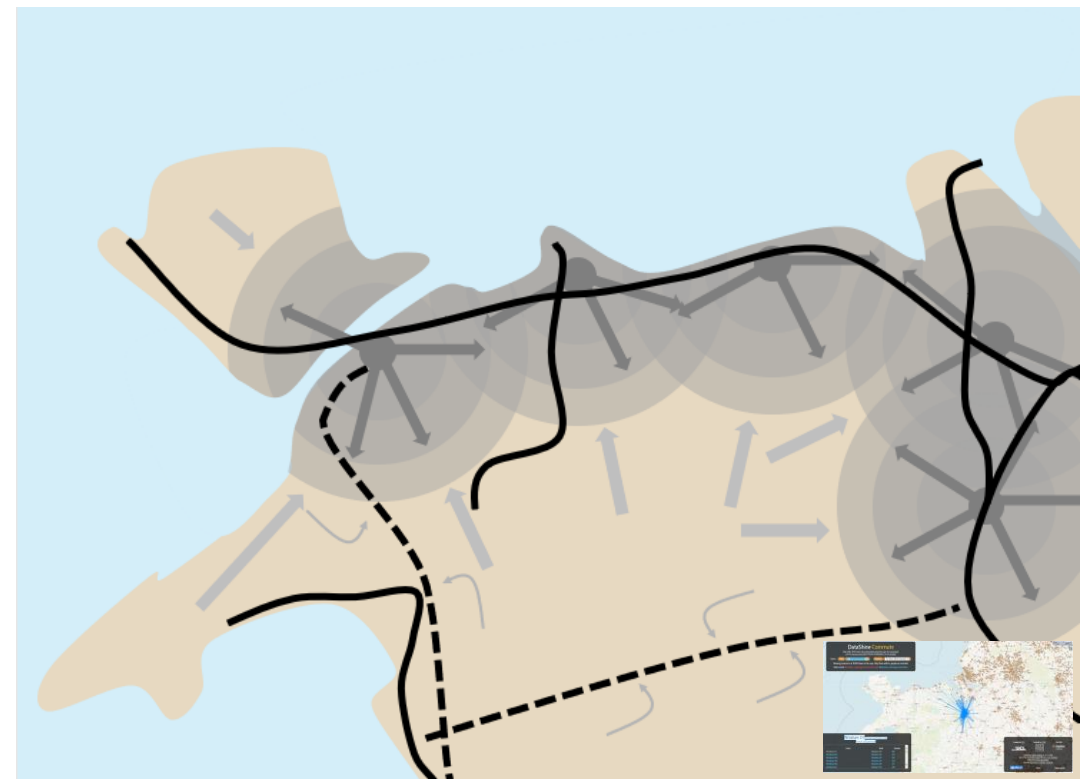
- Local core networks of rationalised, high frequency bus services (focused on the five major employment areas at Wrexham, Deeside, Coast Central, Conwy Coast and Menai).
- Consistent operating hours and service frequencies
- Interchange between services designed into the network and improved integration at rail hubs (with integrated ticketing and real-time passenger).
- Single branded network map and easy-to-understand bus numbering system.
- Integrate active travel facilities to increase catchments.

Regional Strategic Network - TrawsCymru & Rail

- Network of strategic longer distance regional services travelling directly between towns, with consistent operating hours and clock-face frequencies (e.g. 08:15, 09:15, 10:15 etc)
- Single branded network map and easy-to-understand bus numbering system with integrated ticketing (combined with rail)
- Increased focus on interchange to increase destinations by bus (with integrated ticketing and real-time passenger).

Rural Services / Feeder Services / Demand Responsive Services

- Subsidiary feeder/social routes which link to the local and regional networks at interchange points.
- Demand responsive transport as an alternative for low usage bus services.



Wrexham

Supporting Measures to Deliver Transformational Networks

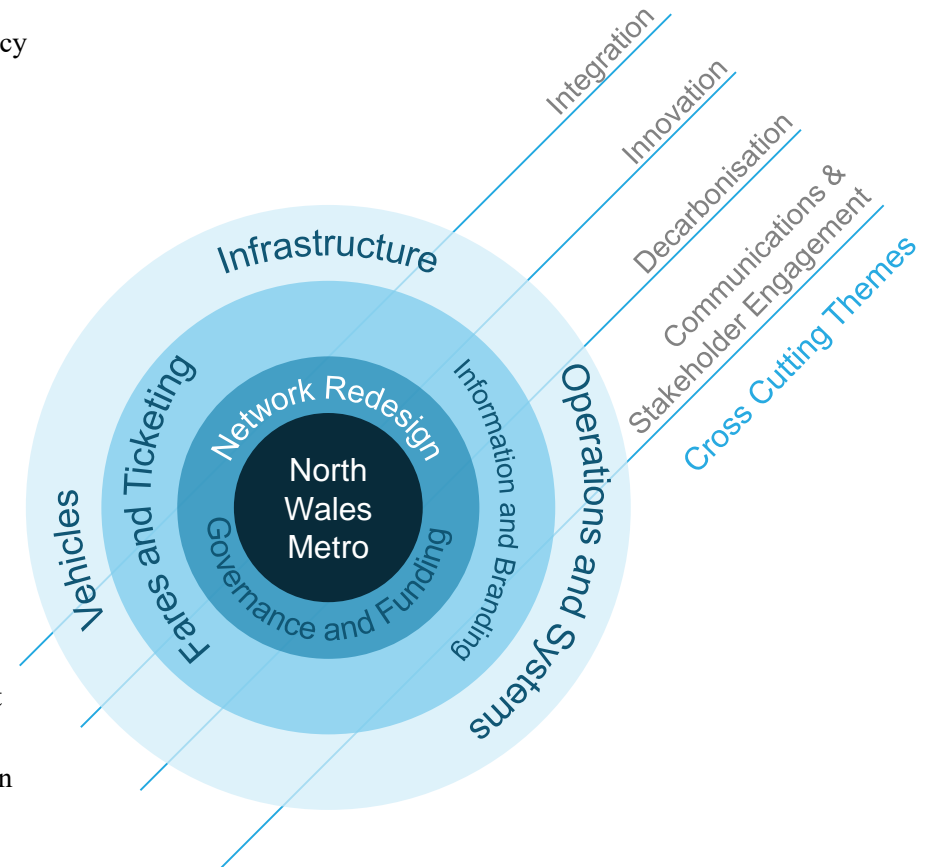
Wider reform of governance and funding arrangements for bus in Wales will be a key enabler for transforming bus networks. Supporting measures across all elements of the bus system will be necessary to enhance journey-making for passengers.

The key change to attract and retain passengers is to provide a rationalised, simplified and coordinated network. Changes to the bus network will need to be supported by interventions across other bus system components:

- **Governance and Funding:** wider reform/consolidation of funding and introduction of emergency funding following COVID-19 pandemic provides scope for agreeing network changes and levels of service with operators;
- **Infrastructure:** Measures to improve corridor speed and bus stop/transfer hub infrastructure;
- **Vehicles:** Define vehicle characteristics to support network proposals (e.g. improved boarding/alighting) and environmental objectives;
- **Fares and Ticketing:** Tickets shall be usable on all local network services to catalyse transfer journeys, with upgrade for regional travel (and for rail/bus journeys);
- **Information:** Simple network maps with transfer locations shown to provide intuitive journey-making for passengers;
- **Branding:** Local networks branded and marketed, integrating with regional bus / rail networks and with Active Travel facilities and links (and demand responsive / future mobility); and
- **Operations and Systems:** Bus operational measures (e.g. depot, fuelling, layover) to support network and infrastructure proposals.

Changes should address cross-cutting themes:

- Integration and co-ordination, including integration with rail, in respect of spatial arrangement of services, timing of services and ticketing for passengers;
- Innovation in respect of technology such bus ticketing, information, and demand responsive, in respect of governance and cost-efficiencies and interchange design;
- Incorporation of low carbon and low emission technologies in bus operations; and
- A bus strategy with bus operators and bus users and local communities able to participate and influence strategy and implementation plan.



Phase 2: Planning and Design Investigations and Delivery Plan for an Integrated Network

Phase 2 consists of design and plan activities for networks, infrastructure and associated operations and systems - to provide a holistic and customer-focused transformation with a clear delivery programme.

