

Agenda – Economy, Infrastructure and Skills Committee

Meeting Venue:

Committee Room 2 – Senedd

Meeting date: 7 November 2019

Meeting time: 09.25

For further information contact:

Robert Donovan

Committee Clerk

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Private pre-meeting

(09.25–09.30)

1 Introductions, apologies, substitutions and declarations of interest

2 Paper(s) to note

2.1 Letter from Chair to Minister for Economy and Transport re Traffic Commissioner for Wales

(Pages 1 – 2)

Attached Documents:

EIS(5)–28–19(P1) Traffic Commissioner for Wales

2.2 Letter from Chair to Development Bank of Wales – Annual report scrutiny with the Development Bank of Wales

(Pages 3 – 4)

Attached Documents:

EIS(5)–28–19(P2) Annual report scrutiny with the Development Bank of Wales



2.3 Letter from Transport for Wales re Canton visit

(Pages 5 – 7)

Attached Documents:

EIS(5)–28–19(P3) Letter from Transport for Wales re Canton visit

2.4 Transport for Wales – Risk management plan – New and cascaded fleet introduction

(Pages 8 – 21)

Attached Documents:

EIS(5)–28–19(P4) Risk management plan

2.5 Letter from Chair of Public Accounts Committee to Welsh Government re MyTravelPass

(Pages 22 – 23)

Attached Documents:

EIS(5)–28–19(P5) Letter from Chair of PAC to Welsh Government re MyTravelPass

2.6 Letter from Chair to Transport for Wales re Redactions

(Pages 24 – 25)

Attached Documents:

EIS(5)–28–19(P6) Letter from Chair to Transport for Wales re Redactions

3 Decarbonisation of Transport – Road based public transport

(09.30–10.45)

(Pages 26 – 75)

Christine Boston, Director for Wales & UK Research and Policy Campaigns,
Community Transport Association

Morgan Stevens, Operations Director, Confederation of Passenger Transport
Wales

Mohammed AbdulHie, Chair, Cardiff Hackney Alliance

Attached Documents:

EIS(5)-28-19(P7) Research briefing

EIS(5)-28-19(P8) Evidence from Community Transport Association

EIS(5)-28-19(P9) Evidence from Confederation of Passenger Transport Wales

Break

(10.45-11.00)

4 Decarbonisation of Transport – Freight

(11.00-12.00)

(Pages 76 – 83)

Professor Robert Mason, Chair in Logistics, Head of Logistics and Operations Management Section, Cardiff Business School

Professor Andrew Potter, Chair in Logistics and Transport, Deputy Head of Logistics and Operations Management Section (Learning and Teaching), Cardiff Business School

Sally Gilson, Head of Skills, Freight Transport Association

Attached Documents:

EIS(5)-28-19(P10) Evidence from Cardiff Business School

Private Debrief

(12.00-12.30)

Ken Skates AM
Minister for Economy and Transport

21 October 2019

Dear Ken,

Traffic Commissioner for Wales

On 9 October the Committee held its annual scrutiny session with the Traffic Commissioner. You can find the transcript [here](#). During the session several points were made on which the Committee would like further information or to hear your views.

The Committee was concerned to hear about “tensions” in the relationship with the organisation providing administrative support to the Traffic Commissioners, the Driver and Vehicle Standards Agency (DVSA). These tensions appear to be causing operational issues, as well as some concerns about “a lack of accountability”. The Commissioner informed the committee that the legal framework document which is set out to govern the relationships between the UK Government, Commissioners and the DVSA was not being adhered to by the DVSA. He also mentioned that there was an approaching review of this agreement to which there “might be an opportunity for Welsh Government to input” into. The Commissioner suggested that there should be an annual assurance process for the Welsh and Scottish Governments, as well as the Secretary of State, to be assured that the DVSA is meeting its objectives.

We would appreciate your views on the effectiveness of the legal framework in light of the Commissioner’s comments, including any issues this approach to coordination may raise for Wales, and any action the Welsh Government is taking to seek to address these.

The Commissioner spoke about the seminars he has been running for Public Service Vehicle operators. They are designed to give the PSV operators upfront information so they don’t find themselves breaking the law later on and according to the Commissioner are effective. Unfortunately the small size of the Commissioners team means he is not able to work through the full list of PSV operators. Will the Welsh Government work with the next Commissioner to increase attendance? Will the Welsh Government also consider working with the



next Commissioner to develop and deliver a similar line of seminars for HGV operators?

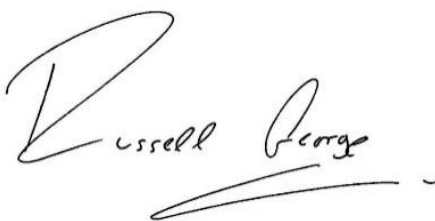
The Traffic Commissioner made it clear he felt that bus registration in its current form is not working as well as it could. The Commissioner felt his office, would be better suited to the task that the current system where Welsh registrations are dealt with from an office in Leeds. Traveline Cymru have also separately suggested they take on this role. Can you outline your long-term thinking on the bus registration process, including how devolved competence might be used in the future?

The Committee also discussed the Panel on Nitrogen Dioxide with the Commissioner. He was understandably reluctant to answer too many questions on the matter with litigation underway, and also did not want to pre-empt any announcements Welsh Government might make. The Committee would be grateful therefore if you could provide more details of the Panel, including its composition, terms of reference, the approach it has been asked to take and when the conclusions from its work will be published?

The Committee would be interested to hear your views on the Welsh Government's approach to discussions with the UK Government around any moves towards devolving responsibility for the following:

- Relocating Public Service Vehicle operator licensing administration for Wales to the Traffic Commissioner's Office in Caernarfon
- Improving synergies between the Welsh Government/the Trunk Roads Agencies and the DVSA

Yours sincerely,

A handwritten signature in black ink that reads "Russell George". The signature is written in a cursive style with a long horizontal flourish underneath.

Russell George AM
Chair
Economy, Infrastructure and Skills Committee



Giles Thorley
Chief Executive, Development Bank of Wales

21 October 2019

Dear Giles,

Annual report scrutiny with the Development Bank of Wales

The Committee would like to thank you and your colleagues for your time and answers during our annual scrutiny session on 3 October. There were some questions the Committee wanted to ask however we did not have time for in the session, and some members have raised follow-up questions to lines of enquiry they were pursuing in the session.

Please can you provide answers to the following supplementary questions:


- The annual report discusses your loan book and touches on provisions for losses. Can you give us an indication of what your expectations are around repayment for your loan book? Specifically what your estimates are for repayment and what you are doing to ensure you are not negatively affected by bad debt?
- The Committee was interested to hear about the investment by Clwyd Pension Fund and the Bank's aim to recruit 'impact investors'. Can you elaborate on this work? Do you have any aims or targets around increasing private sector investment into the Bank and your funds?
- In the session you said that you collect data on the gender split of jobs created by your investments and the pay bands of those jobs. Is this data collected by industry sector as well? Could you provide the Committee a breakdown of jobs created by gender and the gender pay gap of jobs created? If you do not have these details now, when do you anticipate being able to provide them?
- The committee is interested in the sectoral data to see how well the investments are helping people into roles where their gender is under-represented. If possible could you provide the Committee with a breakdown of jobs created by gender of new recruit and sector they were recruited into? If not, would you consider recording and publishing disaggregated data on jobs created by gender and sector in the future?



- Earlier this month Triumph Furniture Company was sadly declared bankrupt. In response to a topical question in plenary that week the Minister for the Economy and Transport stated that Brexit had played a part in their collapse. He also stated that the Development Bank was ready to be deployed to support companies in the event of a no deal Brexit. What is the development bank currently doing to support established businesses who need to re-focus or re-tool, either to reach new markets or to adapt to a changing market, especially in face of an impending EU exit?
- In your annual report you state "Brexit continues to fuel uncertainty as businesses decide where and when to invest. Recent experience has seen some deals stall or fall away completely and we expect this pattern to continue into 2020". Could you expand on this, and the actions you are taking to mitigate the risk created this uncertainty?
- The committee is pleased to hear you are in discussions with the Welsh Government on planning to anticipate and mitigate the immediate effects of Brexit. What longer term preparations are you making and what longer term discussions have you had with the Welsh Government? Particularly what discussions have you had and what is your plan for when the Welsh Government and the Development Bank can no longer access European Funds?

You also promised to send the Committee details of your new self-build fund when you launch it, and the Committee looks forward to receiving this information as soon as it is available.

Yours Sincerely,

A handwritten signature in black ink that reads "Russell George". The signature is written in a cursive style with a long horizontal flourish underneath.

Russell George AM
Chair
Economy, Infrastructure and Skills Committee





Russell George AM
Chair Economy, Infrastructure and Skills Committee
National Assembly for Wales
Ty Hywel
Cardiff
CF99 1NA

28 October 2019

Dear Mr George

During the Committees visit to the Canton depot on Wednesday 23rd September, you and other Members of the EIS Committee raised some questions that I promised to get back to you on. I hope my response goes some way in answering your questions.

1) Question of how many trains will be fitted with WSP this autumn.

During my appearance at Committee on the 9th January 2019, I quoted that I believed there were six units inherited from ATW that were not going to be fitted with WSP. However, I wish to inform Members of the committee that there were actually eight units. Please accept my apologies for any inaccuracy, this was not intentional.

As per our original plan, of the post-2019 TfW rolling stock fleet, only the eight Class 153 single-carriage units were scheduled to not be fitted with Wheel Slide Protection (WSP). This is because these units are not planned to be with TfW long-term and it is not considered cost-effective to fit them with the system.

Since January 2019, we have made a number of changes to our rolling stock plan, which means the planned percentage of trains in service from January 2020 without WSP has increased. We have gone beyond our original rolling stock commitments by introducing five additional Class 153 units, acquired from Great Western Railway. These will not be fitted with WSP. Similarly, the Class 37 locos hired from Colas Rail to haul carriages on the Rhymney Line are also not fitted with WSP. As a result of this, around two thirds of the revised, more diverse fleet, will now be fitted with WSP.

Last month we formally submit an application to seek dispensation to run non PRM compliant units into 2020. As such, a formal request has been submitted and consultation is currently taking place with industry stakeholders to enable a decision to be made by the Secretary of State for Transport regarding this dispensation.

Subject to securing a PRM dispensation, we will then look to temporarily retain some of the trains we originally planned to withdraw prior to 2020 in order to provide more capacity for our customers. These trains will be kept in service for a period into 2020 due to delays to our Class 230 and 769 trains, which were originally scheduled to have been in service in time for December 2019.

We are also examining other options for bringing in further rolling stock from other operators

As more older trains are withdrawn over the course of 2020 and we introduce Class 230s and 769s, this percentage will decrease and by autumn 2020 nearly all of the trains in service with TfW will be fitted with WSP, with the exception of the Class 153s

2) Details on the Ebbw Vale feasibility study

Transport for Wales is committed to running rail services between Ebbw Vale and Newport. However, installing this link requires infrastructure improvements to allow more trains to travel in both directions on the line.

TfW have been commissioned by Welsh Government to produce an Outline Business Case that looks at the feasibility of achieving up to four trains per hour from Ebbw Vale Town, running to Cardiff and Newport, and considers different running patterns.

The Outline Business Case was submitted in October, following a delay caused by the December 2019 timetable changes for UK franchises, which changes the provision and availability of train paths on the South Wales Mainline.

Your constituents should start to see a transformation soon with the introduction of the Class 170s from December this year. They will offer a significant comfort improvement to passengers and feature power sockets, electronic passenger information, air conditioning and their wider doors make them better suited to suburban operation than the trains currently used on peak hour services

3) Shorter journeys in West Wales and more detail.

There will be new two and three-car DMUs on the Milford Haven to Manchester service by 2023, with a first-class service from Swansea to Manchester from 2024.

The Pembroke Dock and Fishguard services will be operated with Class 170s, which will offer a significant improvement compared to the trains that currently serve the routes.

From December, a timetable change will see an additional train every day to Fishguard. The Sunday service to Pembroke Dock will increase on Sundays from 5 to 6 trains per day from 2023

We plan to invest in Carmarthen station in 2021 and Llanelli Station in 2025.

We're going to recruit a new Community and Stakeholder Manager within the next few months and six new Community Ambassadors and Apprentices next year. This team will work with the community to identify further improvements that can be made to the service and to transform sites across the region into community facilities.

Yours sincerely,

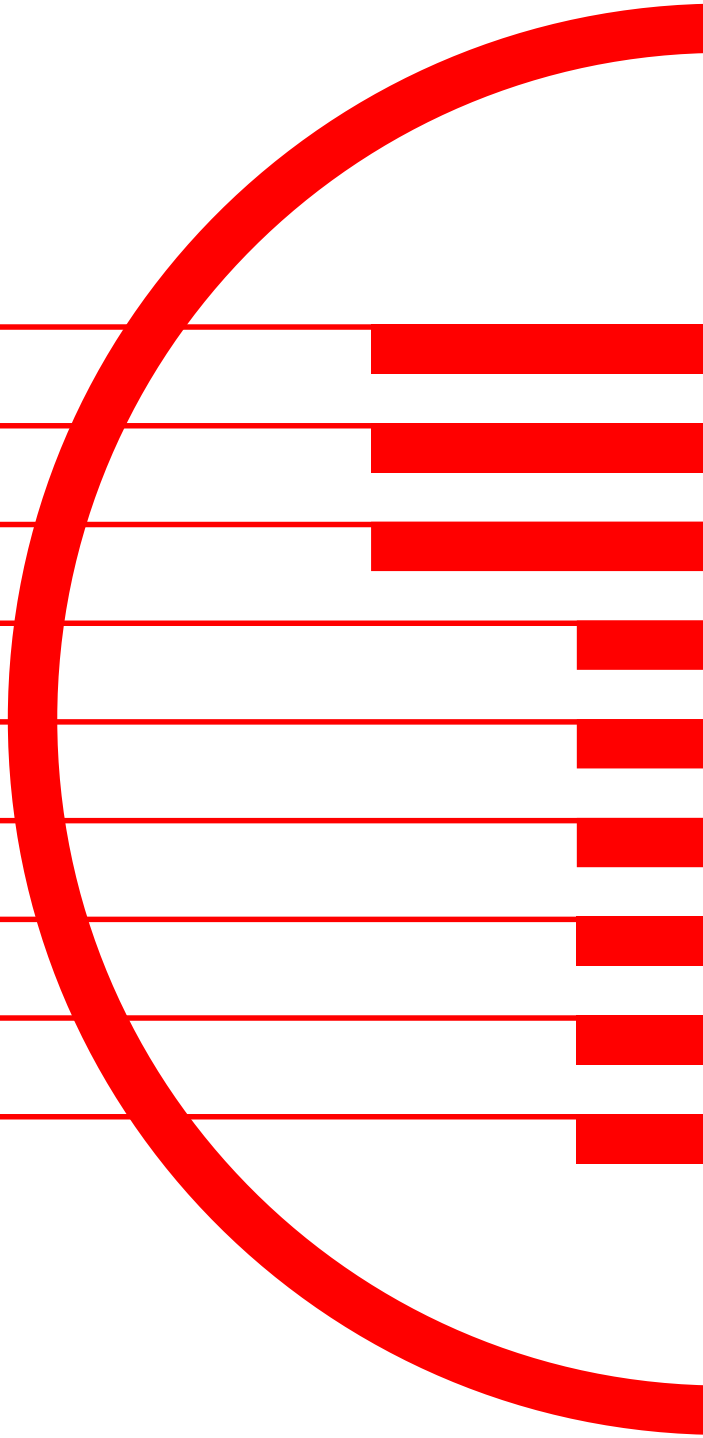


James Price
Prif Weithredwr / Chief Executive

Risk Management Plan

New and Cascaded Fleet Introduction

TfWRS/RMP/001



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1 Management of Risk

KeolisAmey Wales, trading as Transport for Wales Rail Services (TfWRS) is procuring new and cascaded fleets to replace existing fleets currently operating on the Wales and Borders franchise. The fleets to be introduced are expected to be operated in a range of different service types on infrastructure on the Wales & Borders (W&B) routes.

TfWRS plan to transform the passenger experience and provide the improvements in quality of service to meet the changing expectations of the passengers.

The new and cascaded fleets are listed below:

- Class 37 / MK2
- Class 170
- Class 230
- Class 769
- Class 67 / MK4
- CAF Civity DMU
- Stadler CityLink Tram-Train
- Stadler Flirt DEMU
- Stadler Flirt Tri-mode

1.1 General

TfWRS's approach is to manage all risks relating to the introduction of new and cascaded rolling stock, so that its contractual requirements and business objectives are fully satisfied. The company therefore aims to identify and mitigate at the earliest juncture all risks which could affect the successful delivery of the new and cascaded rolling stock projects. Fundamental to this approach is a full understanding of all stakeholders' commercial and technical requirements, timescales and constraints.

All projects within TfWRS are underpinned by a robust risk management process. The approach of progressive risk management is used throughout each stage of the rolling stock projects lifecycle and ultimately to ensure that all new and cascaded Units are introduced to the required standards, and that they achieve and continue to meet TfWRS's contracted requirements in this regard.

1.2 Risks to the New and Cascaded Fleets Introduction Programme

The approach for identification and mitigation of risks relating to the introduction of new and cascaded fleets are mainly:

- Maintaining the reliability of each Class of new and cascaded trains to be introduced to the franchise and mitigation of risks that could reduce that reliability

- Ensuring that the number of Units required to deliver the passenger service timetable requirements are delivered and available on time to meet TfWRS and its client's needs and mitigation of risks that could affect such availability
- Threats to the availability of maintenance facilities and activities
- Changes to processes, e.g. as a result of changes to legislation
- Perturbances which could affect TfWRS's ability to deliver on its contractual commitments
- Anything that could affect the achievement of Safety, Environmental or Quality standards

In addition to TfWRS's pro-active identification of risks, the company shall employ standard embedded processes to ensure continuity of performance e.g. Suppliers, staff competency, best practice procedures, etc.

2 TfWRS Processes

This document outlines the general TfWRS processes that are adopted to provide an integrated approach to deliver the programme and operations. The strategy and the processes employed are designed to provide visibility of genuine progress and issues, enabling all aspects of delivery to be proactively managed. The Risk Management Plan is integral and complementary to wider general TfWRS processes.

The TfWRS Quality Management System (QMS) is used to manage the whole business. The QMS includes: Company Manuals, Strategy and Governance, Safety Management System (SMS) and the Risk Management Plan (RMP). These areas are divided into a hierarchy of many levels to provide a framework for commonality by functional areas within the business.

All TfWRS processes are controlled, reviewed and managed centrally for the entire organisation and, in the case of the Risk Management Plan, by the central Project Management Office (PMO).

Audits on the application of these processes are carried out against TfWRS accreditations (ISO standards) and through internal governance audits.

3 Risk Management Process

Risk Management is concerned with identifying, assessing and monitoring project risks before they develop into issues which impact projects, while Opportunity Management develops ideas that can have positive impact on projects. This document is concerned with risk management, but equally opportunities are managed in parallel, during project execution and make use of common processes and tools. This Risk Management Plan is the standard process to manage Risks and Opportunities and will be employed on all new and cascade rolling stock projects.

Risk Management on each project is supported by a Risk Register, into which all identified risks are input when first identified. All information on the historical development of the risks, including proposed, rejected, active and closed risks is retained in the Risk Register.

Where a risk has several consequences, the information is input to the Risk Register so that each consequence is a separate risk, even though there is a common condition/cause. This ensures that all impacts are considered, whilst maintaining simplicity of the Risk Register.

For each project, TfWRS appoints a dedicated Project Manager who has responsibility for identifying and managing all risks. In this capacity, the Project Manager will:

- Support the wider project team in proactively managing issues with a potential impact
- Ensure that actions and timescales are met
- Manage the Risk Register
- Authorise access to the Risk Register for team members
- Ensure the input of risk data into the Risk Register
- Ensure adherence to the Risk Management processes

Individual risks are assigned to the Project team members, who are each responsible for the management of their risks, inputting to the Risk Register and to the development of response actions related to their function. The Project Management team undertake risk management based on the philosophy of early identification of risks and continuous follow-up throughout the project execution. They will be proactive by anticipating future events that may affect the project and will take the necessary actions to decrease the Likelihood of a risk occurring and/or reduce the impact of the risk, should it occur.

The main success factors of the risk management process will be:

- All the Project risks are comprehensively identified and assessed at Project launch and during the project execution phases.
- An integrated team approach is adopted with the Project Manager having oversight of all risks from all functions and the promotion of information exchanges between these functions, partners and stakeholders
- The continuous management of risks throughout the project life.

The strategies aim to outline the high-level requirements of the system. From the strategies, project specific plans will be developed which will document the workstream in detail and how the requirement will be executed to ensure safe operation of the system.

3.1 Process Description

Risk Management consists of six distinct steps that evolve through the life of the project. The risk management process starts at the bid phase and finishes with project closure. The process steps are not project phase specific and are repeated over the life of the project, see Figures 1 and 2.

...it is iterative: starts during the Bid Phase and ends at Project Close Out



Figure 1 - TfWRS's Risk Management Cycle

Step 1	Identification	Identify, categorise and harmonise risks
Step 2	Assessment	Evaluate and estimate possible impacts and interactions (this is quantified in terms of time or cost and probability)
Step 3	Response Planning	Define mitigation actions
Step 4	Response Implementation	Implement the action plan and integrate it into the project
Step 5	Tracking & Reporting	Provide visibility of risks
Step 6	Closing	Transfer risks to the project scope if they occur and become issues. Close risks that have not occurred by the end of the impact phase.

Figure 2 – TfWRSr's Risk Process Steps

3.2 STEP 1 – Risk Identification

The first action of risk management is the identification of individual events that may be encountered during the project. The identification step comprises:

- Identify the risks
- Harmonisation of the risks identified
- Assignment of ownership of individual risks

For reasons of efficiency, the full Project Team is involved in a series of reviews and workshops to identify, harmonise and assign ownership of risks on a project, namely:

- Contract and commercial review to ensure all the necessary commercial and financial matters throughout the life of the project are managed
- Risk Identification workshops involving all functions
- Lessons learned and incorporation of “best practice” workshops
- Assumptions workshops, where all the assumptions made by suppliers and sub-contractors are collated, validated and any associated risk mitigated
- For new trains projects, critical items assessment workshops: identifying risk and documenting the Failure Mode and Effects Analyses (FMEAs) or other work to be undertaken during execution
- Deep Dives and Gate Reviews, which are senior management-led and cover all aspects of the project

Each risk identified is described by a statement compiled under the “3C’s” format (see Figure 3), thus avoiding ambiguity and introducing consistency into the process.

Condition <i>There is a risk that...</i>	Describe the condition or event or series of events that may happen
Cause <i>The risk is caused by...</i>	...Identify the generic cause area and describing the specific source of the event
Consequence <i>The direct impact of the risk occurring will be...</i>	...Describe the direct impact in terms of the effect on the work areas in which the event occurs (cost, schedule, performance & quality, payment milestone missed, liquidated damages, increase of inventories)

Figure 3 - Risks description format: The 3C’s – Condition, Cause & Consequence

3.2.1 Identify

The identification of risks is performed throughout the project lifecycle and is not a 'one-off' exercise. As the project progresses, the Project Team gains additional knowledge, which can lead to the identification of further risks. Risks also change in scope as the project develops, with changes being communicated at regular risk meetings and the Risk Register being regularly updated to reflect current understanding.

At all stages care is taken to ensure the risks identified are not issues or concerns.

3.2.2 Risk Harmonisation

This evolves through the risk management process and has 3 goals:

- Avoid duplication
- Assess and rank all impacts
- Define all response actions

At the identification stage, the Project Team ensures that there is no duplication of risks and that interfaces and interferences between risks and amongst functions are identified. Harmonisation is carried out to allow risks to be clustered by causes or consequences, to establish links between risks and the response actions

3.2.3 Define Ownership

All Project Team members are responsible for identifying risk, even outside their area. Therefore, the person or function that identifies a risk might not be the best resource to manage that risk to resolution. As the risks are reviewed, by the Project Manager and team, they use experience and judgement to allocate the management of particular risks, based on two considerations:

- The function most impacted by the risks
- The function best suited to manage the response actions

The risk owner then has responsibility for management of their risks and for the reporting of progress to the Project Manager at review meetings

3.3 STEP 2 – Assessment

Assessment of risks consists of evaluating the range of possible project outcomes, should the risk occur. This is carried out as follows:

- Qualitative Assessment - Pre-Mitigation Assessment before execution of any response actions/ mitigations
- Estimation of Risk Impact and Timing
- Quantitative Assessment - Post-Mitigation Assessment based on the response actions being executed successfully and at the correct time (see Section 3.4.2)

The Project Team continuously review the Project risks to ensure that the full impact has been identified and estimated, updating the Risk Register as necessary.

3.3.1 Pre-Mitigation Assessment (Qualitative Assessment)

The pre-mitigation assessment is made by the risk owner and provides a rating for each risk. This allows an initial risk ranking to be made:

- Giving visibility of the risk profile/ranking for the Project Team and management
- Enabling the identification of the risks with highest potential, where immediate effort can be focussed

When completed, the qualitative assessment defines the risk ratings as **HIGH, (H)**, **MEDIUM (M)** or **LOW (L)**, based on the combined magnitude of the Impact and Likelihood of occurrence.

The level of precision is also input to the Risk Register, which is an indicator of the quality of information available when the estimate of Impact and Likelihood is made, namely:

- H – knowledge of the risk Impact and Likelihood is adequate for all practical purposes
- M – enough information is available to provide an estimate of the Impact and Likelihood
- L – Insufficient information is available to make any useful estimate of either Impact or Likelihood

A risk categorised with H precision, allows actions to be formulated and implemented as soon as possible. Whereas with L precision of information, further investigation will be made into the risk to increase understanding. As the precision of information increases, with progression of the project and further understanding of the risks, the precision is updated together with changes to the Impact and Likelihood, if appropriate.

3.3.1.1 Pre-Mitigation Magnitude of Impact

The magnitude of a risk is related to the potential effect on the overall project, in terms of cost or potential delay, and is initially considered without the benefit of implementing any mitigation actions. Five bands are used to describe the potential effect of the risk being realised as shown in Figure 4. Similarly, the Likelihood of the risk occurring is also defined in bands, and through combining the Impact and Likelihood makes for a considered and achievable initial assessment of each risk, using a matrix approach.

RATING IMPACT ⁴	1	2	3	4	5
	Low	Minor	Moderate	Significant	High
Cost (% of Project Value)	<0,25%	0,25 -0,5%	0,5-1%	1-2,5%	>2,5%
But no greater than (value in € or US\$)	1 m	2.5 m	5 m	7.5 m	10 m
Schedule	No delay	Delay, but can be mitigated during execution of delayed actions	Delayed actions will cause the following actions to start delayed	Will cause delayed completion of following actions	Will cause delays for subsequent activities and impact a major milestone
	Unlikely	Low Probability	Possible	Strong Probability	Almost Certain
Pre-Mitigation/Pre-Enhancement Probability of Occurrence	1-20%	20-40%	40-60%	60-80%	80-99%

Figure 4 showing the classification used to estimate the Impact and Likelihood

3.3.1.2 Pre-Mitigation Risk Matrix

A matrix is used for visualisation of a risk, based on the Impact and Likelihood inputs, as listed in Figure 4. The resultant risk classification is displayed at a certain position on the matrix. The classifications are represented by different zones: with High risks denoted by the red, Medium by the yellow and Low by the green zone. The position of the risk on the matrix is designated by the Precision letter H, M or L which was input (see Figure 5, which is a screenshot from a Risk Register database).

A risk position in the red zone results from a high Likelihood of occurrence and high Impact potential and is given high priority by the team, with timely development of robust mitigation actions.

3.3.2 Risk Impact Timings

Consideration is given to the point at which each risk will be realised, again to assist in prioritisation and to allow grouping of actions. The Risk Register has provision for recording Impact Date and Status Date, as inputs representative of the whole project. A Deadline Date is included to prompt regular updating and assessment of a risk to ensure effective management

Mitigation Action	Actionee *	Action Deadline Date	Status	Risk Matrix						
xto understand the scope of stop boards required		30.10.2017	closed							
x and x to undertake vision plots to understand the parameters for installations of stop boards		30.10.2017	closed							
delivery of the stop board fitments		15.07.2018	open							
x and x to clarify the responsibility of purchasing the stop boards		30.10.2017	closed	Likelihood						
					5					
					4					
					3					
					2					
					1					
						1	2	3	4	5
										Impact

Figure 5 – Example of Bombardier's Risk Assessment ROP database tool

3.4 STEP 3 – Response Planning

3.4.1 Risk Mitigation

Response Planning is the process of mitigating the risks identified. Each risk owner is responsible for planning and implementing response actions with support from the Project Team.

- A response plan for a particular risk can include multiple actions involving any team member.
- All Project Team members, including partners and suppliers, may be requested to identify and develop response measures for identified risks, even if they are not the owner.
- The Project Team member responsible for a risk will identify an appropriate Response Actionee.
- After response actions are defined, the Project Team members will review the actions and the Project Manager will confirm these.
- The risk owner will complete all the information required to be input to the Risk Register, including Action Deadline Dates and Action Description and Mitigation Action Cost.
- The risk owner and the Project Team members will liaise with all action owners and ensure commitment and agreement on completion dates.

The cost of implementing mitigation actions are estimated to evaluate the cost versus benefit of an action as, in certain cases, the response action costs might exceed the Impact cost.

3.4.2 Mitigation Assessment

This assessment is a more detailed quantitative or numerical assessment of the individual risks for cost and/or schedule Impact. The assessment is carried out as soon as possible to maximise the effect of any mitigation. The mitigations that are identified to address risks specific to a particular project are identified as measures which are additional to those normally included in the standard TfWRS processes. The assessment includes:

- Definition of the mitigation(s) for each risk
- The phase and person responsible for implementing the mitigation action(s)
- A calculation of the cost of the mitigation
- Consideration of the level of success of the mitigation

The risk estimate after mitigation is assessed as follows:

- Maximum Cost and Schedule Impact – this is not automatically the same as the pre-mitigation Impact, which assumes mitigation actions will not be successful
- Minimum Cost and Schedule Impact – is not automatically the cost or delay of the risk not occurring – the minimum Impact is the estimated minimum cost Impact and delay if the risk does occur, but assuming most of the mitigation actions will be successful
- Most Likely Cost and Schedule Impact – is calculated accurately under the assumption that mitigation actions provide a fair effect, which can be most likely achieved

The probable risk cost Impact for budgeting is determined by multiplying the Most Likely Cost by the Probability Post-Mitigation. For each input the reasoning/details of the costs and probability are input to the Risk Register.

These assessments and inputs are performed by the risk owner and then reviewed by the Project Manager, Financial Controller and Head of New Trains Projects.

3.5 STEP 4 – Response Action Implementation

The risk owner is responsible for mitigation action implementation, monitoring completion date and reporting the status of the response actions at the regular risk review meetings.

Response action implementation is considered under the change control process, where a proposal is comprehensively reviewed, budgeted and approved prior to implementation. The mitigation action owner is responsible for the execution of the tasks or activities to complete the response action. When a response action is completed, and the results accepted by the Project Manager, the risk owner updates the information in the Risk Register and the assessment is modified, as appropriate

3.5.1 Response Action Prioritisation

Risks which could affect the project, at any stage, are constantly kept under review by the Project Manager; sometimes many months in advance of the phase where they could be realised. At any point in the project, attention is focussed on the risks and actions relating to the current phase to ensure timely completion of activities. Where appropriate some actions are integrated into the Project Programme to ensure they are monitored and incorporated into the project activities. The Project Manager creates reports from the Risk Register showing the response actions in the current project phase and distributes and reviews these with the team.

3.6 STEP 5 – Tracking and Reporting

Risk Tracking and Reporting within TfWRS provides continual visibility of risks to the Project Team as it is integral to the project status. The risk owners report on the status of the response actions to the Project Manager through regular risk meetings carried out at all stages in the project lifecycle.

Routine risk tracking is carried out through:

- Functional Reviews
- Project Team reviews
- Monthly Internal and External (e.g. with suppliers) Project Reviews

The Project Manager oversees risks input to the Risk Register and reviews/advises on the content to ensure the descriptions, explanations, costings and mitigations are accurate and understandable for the whole Project Team.

Reporting of risk management issues are carried out through monthly progress reporting, which includes up to 5 top risks that could impact TfWRS.

3.7 STEP 6 – Closure

The risk owners are responsible for recommending closure of a risk to the Project Manager. A risk is closed only when the item is not considered a risk to the project. When a risk is closed, the Project Manager will log all appropriate information in the Risk Register.

Even when a response action is implemented successfully, a risk can still have a residual Impact which requires further mitigation/control. Risks can be closed when:

- The risk is duplicated elsewhere
- The risk has been mitigated and poses no more threat
- The risk did not occur
- The risk occurred (and becomes an issue)

4 Roles and Responsibilities

4.1 The Project Manager

The Project Manager is responsible for day-to-day management of risks, ensuring quality, completeness and accuracy of all information on risks, assessments, costings and mitigations in the Risk Register.

The Project Manager's role includes the following duties:

4.1.1 Start-Up Phase

- Ensuring that risk management workshops are conducted as required
- Management of the handover of risks and their ownership from/to Project Execution team
- Ensuring risk harmonisation during the Project Launch process
- Management of the alignment of the team with respect to understanding the project's risks

4.1.2 Project Execution Phase

- Leading periodic risk management activities
- Ensuring that risk management workshops are run regularly (planned as a minimum every month)
- Management of Project risks in the Risk Register
- Manage, with the support of the Project Team members, the actions and closure of identified risks
- Provide monthly Project risk status and progress reports

4.2 Project Core Team Members

- Coordinate identification, assessment and response implementation of risks within their own functional area and any interfaces with other functions
- Manage and challenge the assessment of risks
- Identify solutions to minimise risks
- Implement response actions
- Report evolution and status on all functional risks

4.2.1 Risk Owner

The risk owner will generally be the Project Team member best placed to manage the risk and formulate mitigation actions to reduce the Likelihood or Impact of the risk being realised, through:

- Defining and implementation of response actions
- Follow-up on response actions
- Reporting the status of risks to the Project Manager
- Providing closing information to the Project Manager
- Managing and updating risk information in the Risk Register

4.2.2 Mitigation Action Owner

Responsible for:

- The execution of mitigation actions
- Reporting status of the mitigation actions to the risk owner
- Pro-actively managing the actions and reporting on any change in schedule or budget agreed for an action

4.2.3 Functional Risk Coordinator

The Project Manager can also assign a functional coordinator to participate in the risk management activities. In such cases, the functional coordinator fulfils the tasks and responsibilities for a particular functional area.

5 Document Review

This document, together with any associated documents, should be reviewed as a minimum every three years, upon legislative change and at regular intervals during the project such as whenever there is a significant change in order to maintain its effectiveness.

Andrew Slade
Director General
Economy, Skills and Natural Resources Group
Welsh Government

29 October 2019

The Welsh Government's youth discounted bus fare scheme – MyTravelPass

Dear Andrew,

Thank you for your letter dated 1 October 2019, which clarified a number of issues with regard to estimated journey data for 2018 – 19.

However, read in conjunction with previous evidence provided to the Public Accounts Committee, the response suggests that the number of 19–21 year olds holding passes decreased rather than increased between May and August 2019, with only 551 live passes in circulation for the 19 to 21 year old cohort at the start of August compared to the figure of 834 cited previously for mid-May.

There is no explanation provided for this difference in your letter, but the figures raise ongoing questions about the effectiveness of the Welsh Government's marketing efforts and aspirations for the scheme. However, we do note that there has been some further growth in the number of 16 to 18 year olds holding passes.

The Committee remained concerned about the progress that is being made in increasing uptake among 19 – 21 year olds and would like further explanation of the figures as well as any information about the Welsh Governments approach to marketing of the scheme.



I am copying this letter to the Chair of the Economy, Infrastructure and Skills Committee so that these issues may be considered alongside the budgeting for the scheme as part of that Committee's scrutiny of the Welsh Government's budget.

Yours sincerely,

A handwritten signature in black ink that reads "Nick Ramsay". The signature is written in a cursive style with a long horizontal flourish at the end of the name.

Nick Ramsay AM
Chair



James Price
Chief Executive Officer
Transport for Wales

31 October 2019

Dear James,

I am writing to establish the criteria used to make decisions around redactions Transport for Wales make when publishing documents.

Clearly some information will need to be redacted for commercial confidentiality reasons. However the reasoning behind other redaction decisions is less clear. For example in TfW's board minutes from July the information around PRM and fleet refurbishment is redacted.

Please could you provide the rational you use to redact information when you publish documents? To aid our understanding, I'd be grateful if you could also explain how this rational applies to each individual redaction in the published minutes for the Transport for Wales Board July 2019 as, in this document, I was surprised to see almost the entire section on PRM and fleet refurbishment status redacted.

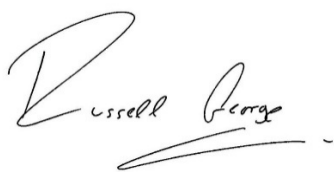
TfW also hosts a number of documents on its website relating to the management of Transport for Wales Rail Services. These also contain some redactions with an unclear rational. For example I was surprised to see in the Core Valleys Line Concept Design document, which forms part of the Invitation to Submit Final Tenders, that several sections which appear to relate to the timing of upgrades to the CVL are redacted e.g. appendices E and F.

I would be grateful if you could provide the reason for each redaction made to the rail franchise Invitation to Submit Final Tenders, and also the Grant Agreement itself.

I look forward to hearing from you.

Yours Sincerely,



A handwritten signature in black ink that reads "Russell George". The signature is written in a cursive style with a large initial 'R' and a long horizontal stroke at the end.

Russell George AM

Chair

Economy, Infrastructure and Skills Committee



Agenda Item 3

Document is Restricted



Response to Economy, Infrastructure and Skills Committee inquiry into the Decarbonisation of Transport

August 2019

About Community Transport

This response is submitted by the Community Transport Association (CTA), a UK-wide charity working with thousands of other charities and community groups across the UK that all provide and support local transport services that fulfil a social purpose and community benefit.

Around 30 per cent of CTA's 1,300 members are charities whose main work is provision of community transport and they would typically use this label to describe their work. This form of community transport helps to address the quality, affordability and accessibility of transport options for people who cannot drive and don't have access to conventional public transport, especially in rural areas. It also recognises that some needs are best met through communities doing things for themselves.

This is about providing flexible and accessible community-led solutions in response to unmet local transport needs, and often represents the only means of transport for many vulnerable and isolated people.

Community transport services are primarily provided through either a section 19 permit which offers door-to-door transport predominantly for those with mobility issues, or through timetabled section 22 services. Section 22 permits enable not-for-profit entities to run local bus services for the benefit of the community. They often use minibuses rather than larger buses, enabling them to operate routes with low levels of frequency and patronage, such as those serving rural villages, in a cost-effective way.

High levels of volunteer involvement, the ability to attract charitable funds, accessible vehicles and a not-for-profit business model all mean community transport is often a more reliable and resilient way of meeting a greater range of transport needs, especially for our more isolated and vulnerable citizens.

The other 70 per cent of CTA's members are charities, community groups and other not-for-profits who use the same permit regime to run transport to support their main charitable activities, such as youth groups or RVS branches.

Introduction

A future with cleaner, more efficient and more sustainable transport is an ideal for community transport operators. Our members care for many of our communities' most vulnerable people, and have a keen awareness of the health and mobility problems brought by air pollution. Our sector hopes to be a positive and proactive partner in the decarbonisation of transport for the next generation.

In addition to the health and wellbeing benefits of decarbonisation, electric vehicles will likely provide technical innovations that bring huge benefits to our operators and service users alike. For example, new EV development platforms featuring low and flat vehicle floors (such as Mellor Coachcraft's range: <https://www.mellor-coachcraft.co.uk/>) will enable greater accessibility for those with mobility issues and greater flexibility to adapt vehicles for those with significant disabilities. Electric vehicles could also significantly lower the per-use cost of providing non-emergency passenger transport for health appointments and of community car-share schemes.

To take full advantage of the opportunities that electric vehicles could bring, however, there are several key barriers that must be overcome. Firstly, the development of infrastructure must be 'rural proofed' to ensure that areas which are poorly connected to the conventional transport network are not excluded from opportunities. Demand for community transport is often highest in communities where traditional public and private transport has the least reach. As a result, these areas are unlikely to be commercially viable locations for early installation of charging facilities by the private sector; policy must be developed to cater for this outcome.

Secondly, given that community transport operators in Wales are often small charities in deprived communities with limited reserves and few opportunities to fundraise in their local area, support should be made available to ensure that the cost of installing infrastructure and purchasing an electric fleet are not prohibitive for operators.

Thirdly, the Committee should be made aware of the skills requirement that a movement towards electric vehicles would bring. To install electrical charging infrastructure and maintain the new technology, appropriate training for mechanics should be made available.

Despite these challenges, Wales is rich in natural resources and community-based energy generation projects are already springing up across the country. There is an opportunity for Wales to build its EV infrastructure from the community outwards, rather than relying on the private sector or large-scale public sector infrastructure projects. This would ensure that the infrastructure benefits from local support, and enable better reach out to rural Wales than a commercial project. A partnership between community energy and community transport could help provide clean, cheap, accessible and inclusive transport for even the most isolated rural communities, and we are keen to support the development of such partnerships in the future.

CTA's Response:

Are the transport emission reductions targets, policies and proposals (set out in Prosperity for All: A Low Carbon Wales) achievable and sufficiently ambitious?

The community transport sector recognises the need for a low carbon Wales strategy and fully supports the aims set out. It is important to set targets to ensure progress and the CTA is glad that these are ambitious. The sector does, however, face challenges in making the switch due to the high cost of electric minibuses and the inability to generate the profits required to invest as a result of permit requirements.

Firstly, low carbon targets may mean that community transport operators look to change their operating model, switching to multiple cars/MPVs as it would be cheaper to acquire low emission cars than minibuses. In Wales, the sector has enjoyed success in securing funds from wind farm trusts to increase the number of electric cars in the fleet but whilst these vehicles are more environmentally friendly, a switch to electric cars from higher capacity minibuses would increase the number of vehicles on the road and reduce the number of communal journeys, with a negative impact on congestion.

The small-scale nature of many community transport operations means that vehicles tend to be older and it is difficult for operators to accumulate the necessary capital to buy new vehicles, retrofit appropriate engines, or absorb running costs in the same way that a larger commercial operator working at scale would be able to. The amount and types of income that can be generated by community transport is further limited by the regulatory requirement that community transport operators cannot make a profit. A new standard minibus can cost upwards of £40,000 - a figure that would be especially difficult for smaller organisations reliant on voluntary funds to raise – and electric minibuses cost around three times more than its diesel equivalent.

Finally, if the financial costs for upgrading vehicles are unsustainable, community transport operators may have to stop services altogether, leaving those with the greatest need, who are reliant on CT services due to mobility issues, without access to transport and subsequently vital services. In the long term, this is likely to add to loneliness and isolation,

with a knock-on effect on health and social care services, to the detriment of the Welsh Government's commitment to achieving the National Well-being Goals.

CTA believes that clean air is an important issue facing our communities in Wales. We support steps to improve air quality across our towns and cities and acknowledge that vehicle emissions contribute to poor air quality. However, we believe that the Welsh Government should be mindful of the social impact that proposed changes will have on vulnerable passengers.

The CTA also supports initiatives that help to cover costs for compliance and protect community transport services.

Recommendation: The Welsh Government should ensure that funding support is made available to allow community transport operators to support the delivery of the Low Carbon Wales strategy by switching to cleaner vehicles.

Is the Welsh Government's vision for the decarbonisation of transport sufficiently innovative, particularly in terms of advocating new technologies?

At CTA, we believe that in the future, more and more people will be making journeys in vehicles they don't own, with people they don't know at first which is the fundamental basis of community transport. Operators deliver flexible, door-to-door, demand responsive, group travel services which we believe will be a central part of the public transport offer in the future. The strategy includes a vision for modal shift, low-carbon vehicles and active travel but provides nothing about innovative models of transport delivery.

The Integrated Responsive Transport pilots being set up currently are a positive step and we would like the Government to communicate an ambitious vision for the future of transport that includes a range of services with a funding commitment that shows their ambitions for the future. The community transport sector has been offering demand responsive transport services for decades and are experts in the field so we believe that the Welsh Government should make a commitment to supporting the sector to work with communities to develop local solutions.

Recommendation: The Welsh Government should ensure that measures to achieve decarbonisation include different models of transport delivery to make the most of all opportunities. In particular, steps should be taken to ensure the expertise available in the community transport sector is fully utilised and services expanded where possible to progress the demand-responsive transport offer for communities across Wales.

What action is required, and by whom, to achieve the targets, policies and objectives?

The forthcoming transport strategy for Wales should have decarbonisation at its heart, focusing on moving people out of private cars and into alternatives, promoting opportunities to travel together. We would also like to see greater community involvement in developing

local solutions to transport needs. Community transport operators are at the heart of their communities and are best placed to understand local priorities, resources and needs, and hence best able to address their local transport challenges. Through our membership, we also have a unique insight into the worlds of people whose lives and choices are diminished by not being able to get to the places they want or need to be, and this experience and knowledge should be recognised in the delivery of strategic plans.

Critically though, what is needed to achieve decarbonisation in public transport is adequate funding for bus and community transport to make the transition. As set out earlier in this response, community transport operators are not in a position to raise the necessary funds for electric minibuses due to the high cost of vehicles and permit requirements to not turn a profit. There may be opportunities to retrofit the vehicles, meaning that the fleet could be converted at a reduced cost. Whilst the Connecting Communities in Wales project has been successful in drawing down funds for community transport projects which have allowed operators to increase the number of electric cars in the fleet, the cost of electric minibuses remains prohibitive and whilst electric cars are a positive step, the sector is conscious of the need to reduce the number of vehicles on the road. The project team has found that capital funding is challenging to secure and so new minibuses would need to be supported by a grant scheme.

Where the transition to electric vehicles has been successful elsewhere in the UK, this has been driven by significant funding, local authority support and planning from community transport operators. For example, Holderness Area Rural Transport (HART) worked in partnership with their local authority to receive a grant from E.ON and LEADER Coast, Wolds, Wetlands and Waterways sufficient to purchase two new electric vehicles: a five seat Nissan Combi and a 14 seat Orion minibus (the latter of which was a specially made vehicle from Mellor Coachworks owing to the lack of availability for electric minibuses), along with charging infrastructure.

Meanwhile in Nottingham, the installation of 40 charging stations within council premises with a further 60 planned, along with the provision of 95 public charging points in the city and a further 55 due to be installed, as part of Nottingham City Council's 'Go Ultra Low Nottingham' project, has meant that the council can be confident in their plans to replace seven of the diesel minibuses on their fleet with five electric minibuses. This provision of appropriate infrastructure will likely also facilitate the future electrification of fleets in other organisations.

The Welsh Government should also be mindful of actively including the voluntary sector in any future funding scheme. For example, while Transport Scotland's Green Bus Fund was a positive step towards helping bus operators to become compliant with energy targets, their 2018 fund only allowed bids to help buy Low Emission Buses rather than minibuses, which constitute the majority of community transport vehicle provision. Similarly, the Energy Saving Trust's Scottish Bus Emissions Abatement Retrofit Programme (BEAR), while allowing community transport operators to apply for funding, has thus far only awarded funding to large and mostly commercial operators. More should be done to reach out to smaller

organisations, such as community transport operators, to assist them to make bids for funding.

Recommendation: The Welsh Government should ensure funding is available to support the transition to electric vehicles and ensure this support extends to minibuses.

How should the new Wales Transport Strategy reflect the actions needed to decarbonise transport?

The new Wales Transport Strategy should focus on reforming transport to support the aims of the low carbon strategy and respond to the Welsh Government's declaration of a climate emergency. Plans going forward should be based on the new transport hierarchy and promote new models such as demand responsive transport and community ownership. The sharing economy is growing and is becoming a central part of transport innovation through developments such as Uber, Blablacar, nextbike and so on, increasing opportunities for mobility without the need for vehicle ownership. The strategy needs to recognise that transport is changing and will change over the next decade or so beyond recognition. Policy must create an environment where new, low carbon, shared use vehicles can succeed.

As recognised by the Low Carbon Wales strategy, there is a need to 'transform the image and the reality of public transport to make it a more desirable alternative to the private vehicle.' Whilst we agree that a move towards a zero emission bus fleet will contribute to improving the attractiveness of bus travel, a number of further measures are required alongside this to ensure that public transport is seen as a viable alternative for current car-users. For example, the Welsh Government must ensure that transport is planned and implemented in a more joined-up manner so that people are able to travel across different modes of transport seamlessly – in Cardiff, for example, the loss of the bus depot by the train station stands as a disadvantage and disincentive for people with mobility problems to travel.

Moreover, modal shift can only be achieved when innovations take into account the full range of passenger needs. The provision of high quality, accessible and demand-responsive solutions by community transport organisations means that often they are able to provide the first and last mile of journeys that make an overall multi-modal journey possible, where someone would otherwise have driven, or be driven, the whole way, as a result of the station or stop on a journey being too far away or inaccessible for someone, particularly with mobility issues, to reach. It is therefore vital that work on the Wales Transport Strategy coordinates with community groups to ensure that those who are left behind by the current transport network have a voice in shaping future transport provision and that public transport changes are truly accessible and inclusive for all, including for those currently disadvantaged.

Recommendation: The Wales Transport Strategy should ensure it provides for the full range of transport options and in particular, the Welsh Government should work with local groups to ensure those who are left behind by the current transport strategy can have a voice in shaping future plans.



Cyddfederasiwn Cludwyr Teithwyr Cymru
Confederation of Passenger Transport Wales

Cyddfederasiwn Cludwyr Teithwyr Cymru/The Confederation of Passenger Transport Wales (CPTCymru) is the professional trade association of the bus and coach industry in Wales and is part of CPT UK. Its members in Wales include operators forming part of large multinational transport operators, municipally owned operators, medium sized independent operators and small family businesses. CPTCymru members provide over 80% of all bus journeys and some 70% of all public transport journeys made across Wales. Our members are often significant local employers, especially in the rural parts of Wales, and make major contributions to their local economies. The bus and coach industry as a whole employs some 4000 people across Wales.

CPTCymru governance includes the Bus Commission Cymru, Coach Commission Cymru and also its Committee for Wales, all of which all members may attend, and members are consulted widely on the whole range of issues affecting road based public transport.

We are pleased to be able to contribute this submission to the enquiry by the Economy, Infrastructure and Skills Committee of the National Assembly for Wales. We have no objection to this being placed within the public domain.

Formal and brief responses to the specific questions set out in the Committee's consultation invitation are provided at the end of this submission and they form part of our overall written response.

The industry recognises that the future of urban road transport lies with ultra-low and zero emission vehicles. Operators and bus manufacturers are now developing the next generation of such vehicles that will help improve air quality and address climate change through carbon reduction. However the industry needs appropriate levels of financial support and a realistic time frame to make the transition. Electric vehicles are currently priced at around 100% premium to a standard Euro VI diesel vehicle and there will be initial outlay for depot electrical charging equipment and supply connection. It will be necessary to ensure that bus depots have electricity supply with sufficient capacity to support overnight charging of their fleets. Changes to depot layout might also be necessary to allow simultaneous charging of the whole fleet. We have estimated the cost of upgrading a single depot of at least fifty vehicles, at around £1.5m-£2m. There will also be additional, unknown and unpredictable supplier connection charges which vary from place to place. Operators also have to factor in the cost of battery replacement for electric vehicles; there is as yet insufficient operational experience to be able to predict

battery life. This represents significant upfront costs for operators looking to move to zero emission fleets.

Prosperity for All: A Low Carbon Wales does not set out the modelling against which the target of 2028 has been set. CPT has been working with its members on a bus strategy for England, which will be launched in the autumn. In this strategy, operators will pledge to purchase only next generation ultra-low or zero emission buses from 2025 (from 2023 in some urban areas). But the strategy recognises that, to deliver this pledge, the industry needs support from Government, including a commitment to:

- Support for the extra purchase cost of ultra-low and zero emission vehicles until prices progressively align with comparators and where the range can match that of diesel, to obviate the need for extra vehicles
- Work with the electricity and fuel supply sectors to ensure the electric and other alternative fuel infrastructure is in place to connect bus depots and strategic locations. In particular, key bus depots will need to be cost-effectively supplied with high capacity network connections sufficient to charge the entire fleet
- Ensure the provision of quick rapid charging infrastructure at transport hubs; new facilities need to include charging points and new bus depots need to include future proofing with EV infrastructure in mind
- Put in place a clear plan under the Government's Industrial Strategy that will support the UK's manufacturing and supply chain in improving and developing important technologies, including clean diesel, battery and low carbon technologies
- Acknowledge that with today's technology, not all bus routes will be able to be converted to EV operation and some may have to rely on ultra-low emissions diesel, bio gas or other fuels; in future hydrogen fuel cell technology may overcome this but the capital costs are currently prohibitive
- CPT UK has carried out some modelling of potential fleet replacement timeframes and costs, in order to inform the Department for Transport of the likely levels of capital expenditure support necessary to deliver the pledge in England. There is nothing to suggest that the results for England will be different for Wales. This modelling shows that even delivering on this ambitious pledge will not result in entire fleet replacement by 2028 in England. Bus operators have invested £1.3bn in new, cleaner, greener buses over the last five years such that the UK now has the youngest, cleanest ever bus fleet. The latest Euro VI diesel buses have very low emissions (emitting less NOx per vehicle than the latest Euro 6 diesel cars and having to achieve this on the road, not just under test conditions). These provide the most practical short-term solution for meeting clean air strategies and implementing Clean Air Zones. However, buses typically have a 15 year (or longer) life and investment is written off over this period. What happens to cascaded diesel buses which, in many cases, will have a residual value that may not be achieved if the market is flooded with such buses, there is a potentially considerable cost implication here? It is also important to recognise the useful life and value of these buses, and it would make no environmental sense to scrap a low emission bus with years of life remaining.

We welcome the recognition that the key to decarbonising transport is modal shift away from car and onto sustainable forms of transport, including public transport and active travel. As the statistics in *Prosperity for All: A Low Carbon Wales* show, carbon emitted by buses in Wales is very substantially less than a third of that emitted by cars (2% for buses **and** heavy trucks compared with 7.7% for cars), and one double decker bus could take up to 75 cars off the road. Buses should therefore be seen as part of the solution, not part of the problem.

By improving the service on offer we can tempt people away from their cars and onto the bus. However, many of the hurdles to increasing patronage, such as improving journey times, reliability and value for money, can be tackled only in partnership with local and national government. In particular, we need ongoing investment in measures to tackle congestion. This committee produced an excellent report on the effect of congestion on buses in July 2017, and it is disappointing that the bus industry has seen little change for the better following the report, despite the acceptance by the Government of the various recommendations made.

Buses have a vital part to play in reducing or managing congestion in urban areas, but they are particularly badly affected by it themselves, with negative impacts on journey time and reliability affecting both running costs and patronage. It is thought that congestion has slowed bus speeds by, on average, 10% per decade, and that a 10% decrease in speed reduces patronage by at least 10%.¹ In order to provide the efficient and reliable service that existing bus passengers deserve and that will increase patronage by tempting car users onto the bus, we need investment in measures to tackle congestion which include bus priority measures. Evaluation of past schemes shows that every £1 spent on investment in local bus priority measures can deliver up to £8 of economic benefit.² This includes direct benefits to users such as access to jobs, training, shopping and leisure opportunities, as well as benefits which accrue to society at large, through decongestion, reduced pollution, lower accident rates, and improved productivity.

We also welcome the recognition that sustainable transport needs to be factored in to planning decisions and the sustainable transport hierarchy for planning set out in Planning Policy Wales which seeks to prevent car dependent developments that discourage the use of active and sustainable transport. Development planning also needs to recognise the requirements for the delivery of sustainable bus services, in particular the establishment of demand “churn” along the length of the route, and the need to avoid diversions that are short on distance but long on time due to road configuration and junction design.

Prosperity for All: A Low Carbon Wales talks about “proposals to legislate to improve the effectiveness of bus services including establishing Joint Transport Authorities, Enhanced Quality Partnerships, use of franchising, enable local authorities to run their own bus services”.

¹ Professor David Begg for Greener Journeys (2016) *The Impact of Congestion on Bus Passengers*

² KPMG (2015) *An economic evaluation of local bus infrastructure schemes*

There are numerous examples across the UK where local authorities and bus operators have worked together to improve bus services (the responsibility of operators) and improve the infrastructure supporting buses (the responsibility of local authorities). Partnership agreements have brought increases in passenger numbers to towns and cities from Brighton (up 21% over the past decade) to Bristol (up 50%) and Liverpool (up 16% in just four years). Compare this with the situation in London, where passenger numbers fell, under the franchised regime, by 2% last year.

What all of these successful partnership agreements have in common is a focus on putting the bus first on our congested road network. Local authorities have invested in measures to reduce bus journey times enabling operators to run more frequent, more reliable services. The principal reason people do not use buses is that congestion means they are too slow and journey times too unpredictable. Fixing that is the real key to a better deal for passengers.

The Committee raised four specific points in the consultation invitation/terms of reference:

- *Are the transport emissions reduction targets, policies and proposals (set out in Prosperity for All: A Low Carbon Wales) achievable and sufficiently ambitious?*
These targets are extremely high, and we would question whether they are at all achievable in the stated timetable without immediate and considerable investment. This investment would not only need to cover the cost of new vehicles, but also the significant cost, and work, of providing sufficient charging infrastructure, retraining and retooling at maintenance facilities/depots. There are also questions on the longevity of batteries, and the cost of their replacement and whether the technology will achieve realistic maintenance cost reductions, and the current ability to serve all routes and duties with the battery powered vehicles. These need to be robustly tested and proved.
- *Is the Welsh Government's vision for the decarbonisation of transport sufficiently innovative, particularly in terms of advocating new technologies?*
Prosperity for All : A Low Carbon Wales gives little detail on technology or on the provision of the infrastructure needed even remotely to achieve the ambitious targets set by 2028.
- *What action is required, and by whom, to achieve the targets, policies and objectives?*
We have described in our submission the importance of cooperation in this work and how good, effective partnerships will be key to ensuring substantial carbon reduction. We also feel that *Prosperity for All: A Low Carbon Wales* is very short on costings and on how these will be covered.
- *How should the new Wales Transport Strategy reflect the actions needed to decarbonise transport?*
Again, this needs to have due regard to the practical difficulties of setting such ambitious targets and of how realistic it will be to attain them. Unrealistic targets

will surely serve as a deterrent and have the opposite effect, and could, in effect, demoralise everyone striving to reduce carbon in Wales.

Cyddfederasion Cludwyr Teithwyr Cymru : Confederation of Passenger Transport
Wales Awst 2019 : August 2019

Agenda Item 4

EIS(5)-28-19(P10)

**Decarbonising Freight Transport in Wales
Submission to Enterprise, Infrastructure and Skills Committee inquiry on
Decarbonising Transport**

by

**Cardiff Business School, Cardiff University
Andrew Potter, Emrah Demir, Irina Harris, Robert Mason,
Vasco Sanchez Rodrigues and Anthony Beresford**

1. Introduction

Effective logistics is increasingly becoming an indispensable fundamental to the way we live our lives. We require reliable, cost-effective, responsive and sustainable logistics systems, within which freight transport is clearly a key component. Therefore, in aiming for a decarbonised Wales it is vital that freight requirements are considered and planned for on an integrated basis with all other aspects of the strategic framework.

It is recognised that freight transport, and logistics more widely, are among the most challenging of areas to decarbonise. This is also compounded by the facts that the economy steadily grows invariably pushing up demand for freight movement, and the way we live is highly dynamic, which changes the demands we place on logistics systems over a range of timescales. For instance, freight volumes globally are expected to triple between 2015 and 2050, according to projections published by the International Transport Forum, an inter-governmental think-tank, and during this period significant structural changes will occur around the nature of economic activity, such as the growth in e-Commerce. In the case of the Welsh logistics sector, it is expected that there will be a continued discernible decline in bulk commodity transport and an increasing requirement for inter-modal shipment and the use of light goods vehicles (LGVs), notably as supply chains become more time sensitive. This is all part of a broader shift towards lighter commodities, more frequent distribution cycles and lower average loads commensurate with a modern just-in-time economy, which is meaning there is a move in favour of road (rather than rail, for example) and towards the use of smaller vehicles, such as LGVs and vans. In addition, freight transport is a sector that is predominantly privately owned and operated, so is outside the direct control of governments (unlike much of public transport for instance), which needs to be reflected in how the decarbonisation agenda is framed from a policy perspective.

Against this backdrop, in our review of the transport element of the draft report “Prosperity for All: A Low Carbon Wales”, **we are concerned to observe that there is very little mention of freight transport in the proposed policy**

interventions. This is surprising as freight is such an important part of transport. The emissions data for transport in Wales, assuming a business-as-usual scenario, suggests that **freight contributes between 30 and 40 percent of all transport emissions** (if light trucks, heavy trucks, buses, international shipping and domestic shipping together are added together, then the total comes to 40.4%. Some of that will be buses, and some of 'railway' will be freight. Hence the estimate of 30-40%). We would comment that the Wales Freight Strategy has not been updated since 2008, although we note that the Freight in Wales Report from the Freight Working Group was published in 2016 and the Marches and Mid-Wales Freight Strategy was subsequently published in 2018. Therefore, we would like to provide the Committee with some focused thoughts on how freight transport can contribute to the decarbonising agenda as highlighted below.

2. Logistics, not Freight Transport

We feel freight transport should be considered within the wider setting of logistics. The operation of distribution centres, warehouses and transport exchange nodes, such as ports and intermodal hubs, not only generate carbon emissions, but also have a considerable bearing on the operations and requirements for freight transport. We thus **advocate that the aim should be to decarbonise logistics, not just freight transport, in any strategies that are developed.** Such an aim should also include relevant logistics areas that can impact on the freight moved through transport networks, such as Information & Communication Technologies (ICT), and reverse logistics.

3. The Current Freight Strategy

The current strategy for freight transport in Wales is set out in the 2008 Freight Strategy Report, which was **built around a hierarchy of three principles that have been used to steer a future freight transport decarbonising strategy for Wales.** The principles are:

1. *“Minimise demands on the transport system through spatial policies such as encouraging local sourcing and influencing distribution policies;*
2. *More sustainable and healthy forms of travel, encouraging switches from road to rail and sea through the grant/taxation system, promoting interchanges and better freight information provision;*
3. *Make maximum use of infrastructure through best use policies for each of the transport modes”* (Wales Freight Strategy, May 2008)

Additionally, we note that these three principles do not cover the decarbonisation of logistics networks through efficiency gains, and fuel and vehicle improvements through innovation. We incorporate these elements in our discussion below.

4. Decarbonising of Freight Transport/Logistics around the Three Principles

Principle 1: Reducing the Demand for Freight Transport

There are a number of steps that can be taken to reduce the demand for freight transport, although it should be acknowledged that these decisions are often in the context of UK wide distribution networks and global supply chains. This adds complexity and often moves the point at which decisions are taken outside of Wales.

Ultimately, the most effective approach would be to reduce the amount of goods consumed and the length of supply chains that support this consumption. Returning to localised production and changing consumer behaviour would be ways to achieve this, although influencing such decisions is likely to occur through other areas of government policy-making, away from the area of transport.

It should also be noted that **transport planning can have a significant influence on the demand for freight transport generating trade-offs which are sometimes complex.** Much emphasis in the “Prosperity for All” draft strategy is placed on supporting sustainable travel options and reducing the need to travel. However, measures such as **emission zones around urban centres** may deter shopping trips, but in turn may increase the amount of freight transport required as products need to be delivered to more locations such as homes and offices. Equally, emission zones not suited to heavy goods vehicles may necessitate more frequent multiple deliveries using LGVs. It should also be noted that approaches such as introducing more **freight consolidation centres** could support an overall reduction in the demand / carbon emissions levels for/from freight transport. Interestingly, while often emphasised for urban areas, opportunities also exist for developing consolidation centres in more rural areas of Wales.

In addition, as freight transport is entirely a derived demand, we would highlight the fact that there are drivers increasing the need for freight transport, which works against this first Principle. For instance, the UK had the third largest e-commerce market in the world in 2016. E-commerce accounted for a 16.5 percent share of total business turnover in the United Kingdom in 2017. By 2021, around 93 percent of UK internet users are expected to make an online shopping purchase, the highest online shopping penetration rate in Europe. Couriers and logistics companies anxious to find economies of scale in their deliveries to end customers, which can make their operations more profitable, are investing heavily to ensure their operations match service expectations, as well as decarbonising their logistics networks. This is further fuelling the growth of this market, which in turn is meaning that the burden

on the transport network will increase year on year as this market further matures.

Principle 2: More Sustainable forms of Transport

Encouraging less environmentally intrusive transport and travel behaviour could be achieved through switching towards more sustainable modes or by the introduction of traffic restrictions and revised taxation targeted at easing congestion at rush hours. This could require joint planning and operating of public and freight transport where the public and private sectors need to work more closely together. For example, this could lead to using spare capacity available in private and/or public passenger transport vehicles/journeys to, for instance, move parcels ordered through home delivery or click-and-collect distribution channels.

Principle 3: Making Best Use of Transport

Beyond this, there is the opportunity to ensure that the transport that does take place is done so as efficiently as possible. This may include choosing the most appropriate mode of transport, maximising the use of capacity, planning of logistics networks, efficient routing of vehicles, and the decarbonisation of vehicles and fuels themselves. Here there are more opportunities for transport policy to have an influence, and we consider below each freight transport mode in terms of practices to enable decarbonisation.

A. Road Transport

More freight vehicles on the road to satisfy customers' requirements will create extra burdens on other road users. This will increase the negative externalities of freight transportation in Wales, particularly in urban areas, if logistics providers do not invest in innovations to decarbonise both their networks and their fleets. Despite the increasing importance of smarter transportation on the political agenda, very little empirical information is available in the Wales context.

Integrating passenger and freight flows where possible can be a promising solution to the needs of modern world because the same transportation needs can be met with fewer resources (i.e., road vehicles). A successful integration can make socially desirable transport options economically viable in rural areas where the population is declining. In urban areas, it can help reducing traffic congestion and emissions (i.e., greenhouse gases and air pollution) and facilitate the development of hybrid, electric and autonomous vehicles. Besides, further research should be undertaken on alternative greener fuel sources, such as second generation of biofuels and nearly zero carbon renewable energy sources, such as wind, biomass and solar, that could be used to electrify road transport. One pertinent question on electric vehicle

technology that needs to be addressed is the environmental footprint of batteries, which is a significant shortfall of this type of technology.

Other positive actions that could be considered in reducing carbon emissions from road freight include:

- Enhancing driving standards and styles
- Increased use of routing software and telematics
- Implementation of Euro Engine Standards
- And perhaps more radical ideas such as
 - Using buses instead of trucks for low volume movements
 - Use of hybrid passenger/freight vehicles
 - Use of sensors, smart traffic lights, congestion zones, AI for advanced traffic routing etc.

In addition, positive actions around the use of alternative fuels may be incorporated in to the strategy with issues to be considered including:

- Where are we with these technologies with particular reference to Wales?
- Infrastructure requirements for bio-diesel fuel, electric vehicles and bicycles
- Biofuels versus renewable energy debate
- Suitability of different energy sources based on locality and weather
- Storage of organic waste as a resource for the generation of biomass energy that can be used to electrify vehicles and warehouses

The introduction of autonomous vehicles for the transportation of goods represents a major step forward environmentally, socially and economically. Autonomous vehicles reduce emissions and air pollutants, protecting the environment and improving people's lives. Socially, these vehicles support the sharing economy and contribute to advancing the sustainable development agenda. Finally, autonomous vehicles also improve the planning of transportation activities, making road transportation more efficient and economical. However, the Welsh road network was designed for independent drivers and there are many financial, technical and legislative challenges to overcome before driverless vehicles will be a reality.

An extension of automated vehicles is the truck platooning concept – consideration of what this could offer and how it could be implemented should be part of future thinking.

The future of transport can be envisaged as being “seamless mobility” where all modes and vehicles are fully connected and integrated into a single network of information exchange. As mentioned, one possible implementation of (semi-)autonomous vehicles is the truck platooning - the linking of two or more trucks together to create a train, enabled by the Internet of Things (IoT) and automated driving support systems. Truck platoons (with wider consideration

of passenger transport applications and implications) are effectively “road trains”; instead of railway tracks and signals. These ‘trains’ are connected through an advanced communication and sensor network.

The practice of truck platooning will grow dramatically over the next decade, but governmental and business participation is still limited, and the effectiveness of the system remains unexplored. European Union countries are leading the efforts of achieving truck platooning in the near future, with trials ongoing, particularly in the Netherlands. By 2025, truck platooning will be a regular phenomenon on European motorways. So why is the UK not preparing for this technology?

Compared to other European countries, the United Kingdom has been slow to react to this technology. Despite the UK government’s ambition to see fully self-driving vehicles, without a human operator, on the road by 2021, limited progress has been achieved so far. **The UK government and, where devolved, The Welsh Assembly needs to provide a clear agenda**, beginning with trials following fixed routes in dedicated lanes to fully automated, multi-vehicles platoons in real-life traffic environment. The current UK road network is an obvious challenge, but a challenge that could definitely be overcome through investment in technology. Wales can be a part of this technological transformation and take advantage of all the potential benefits.

B. Rail Transport

Points to consider here could include:

- Modal shift from road, which is more challenging as a large amount of freight moves relatively short distances to/from and within Wales
- Limited capability and applicability of alternative fuels for rail.
- A UK wide rolling programme would help as it would reduce costs and enable some ‘freight friendly’ infill sections. E.g. once GWML electrification is complete, the Cardiff to Felixstowe container train will cover probably 80% under electric, but be diesel hauled because of a small amount of track in London and the Felixstowe branch line are not electrified.
- However, many freight routes are unlikely to ever justify electrification and therefore diesel haulage will remain.
- Therefore, should we be looking to take this freight off the railways once electric HGVs are established?
- To overcome the passenger vs freight arguments where capacity constraints exist. There is a need to think about this now because of the longevity of railway assets.
- A key aspect that should also be researched is the location of intermodal terminals (with or without customs clearance) in Wales that could facilitate intermodal connectivity between sea and rail transport flows

at Welsh sea ports, and rail and road transport flows centrally located in Wales.

C. Shipping and Seaports

Issues in shipping include:

- Carbon is not the only problem with shipping, given the fuel type used. Wider issues of air quality need to be considered
- What alternative fuels are there?
 - Considerable research here around hybrid engines is being carried out but progress is relatively slow
- Emissions from ports should also be considered - e.g. ABP has an electricity farm at Barry.
- Surface based modes for international trade are becoming more important (e.g. the landbridge transport to/from China)
- The decentralisation of container handling from England to Welsh ports should also be on the agenda of the Welsh Government. Such an initiative could reduce the tonne-km of the UK road freight transport sector as whole.

D. Aviation and Airports

In air freight the following could be considered:

- Very limited freight is transported directly from Cardiff Airport and generally goes in the hold of passenger aircraft. Therefore, improving emissions in passenger transport should have a benefit for freight.
- More generally, a need to challenge the demand for intercontinental freight by air could be made with rail landbridge routes now becoming viable alternatives.

E. Pipeline

Although a specialist area this is also an important mode of transport. Areas of consideration include:

- An acknowledgement that a significant amount of oil and LNG moves by pipeline, which is probably the most carbon efficient mode currently (albeit for carbon unfriendly products).
- Are there more opportunities for this mode? It would be difficult to justify the Welsh Government providing the infrastructure, but support for any planned developments could be considered.
- Much is made of capsule pipelines and underground freight (such as Hyperloop) for future freight movements but, beyond new urban

developments, the infrastructure cost is likely to outweigh the benefits. Also, this technology remains under development.

Finally, in this discussion on freight modes, we believe the traditional segmentation of considering passenger and freight transport as completely separate entities could be challenged, as there will be increasing opportunities for these two networks to operate synergistically together with an improved sustainability outcome.

5. Conclusions

In summary, we consider that the Welsh Government's vision for the decarbonisation of transport is not sufficiently innovative, particularly in the area of freight transport (and logistics!) where new technologies and imaginative solutions could contribute to meeting the decarbonisation objectives being proposed.