

1. The current franchise does not always meet passenger needs, for example:
 - 1.1. Some services, (particularly Manchester services), are crowded due to trains being too short
 - 1.2. Some routes and stations do not see reasonable service frequencies and/or journey times
 - 1.3. Integration with bus services is often poor
2. Many lessons can probably be learnt from the current franchise, including:
 - 2.1. It was let on a 'no growth' basis without allowance for additional services or train lengthening to meet increased demand. This was a mistake. Additional services ('Y Gerallt Gymro' Holyhead – Cardiff express and Fishguard 3-year trial) have come at great expense to WAG (ATW have seemingly charged almost the full cost of providing the service, rather than the cost minus the additional revenue the improved service generates). ATW sold their mrk2 carriages (actually owned by ATW, unlike most other stock) rather than using them to enhance capacity. The replacement for the ATW franchise should include some form of obligation to enhance capacity if and when trains become overcrowded on a regular basis.
 - 2.2. Some of ATW's station refurbishment proposals, such as Aberystwyth and Shrewsbury, which are listed buildings, have been very unsympathetic to the existing architecture. The vibrant turquoise colour scheme is also unsympathetic. Birmingham Moor Street, on the other hand, is a great example of a station with plenty of character. The replacement for the ATW franchise should prohibit operators from applying their corporate image to stations and instead specify a standard design. The 'standard' for some stations however could be a specific colour scheme, such as chocolate & cream, which the operator similarly should not be allowed to change. The standard scheme for each station should be decided by the Welsh Government following public consultation.
3. Passenger involvement in the new franchise should include public consultations on timetable changes. These should be issued allowing sufficient time for comments raised in the consultation to be acted on before the new timetable is finalised.
4. Management model for the replacement 'franchise'.
 - 4.1. Only around £140m of the £170m subsidy paid by WAG to ATW gets to the railway. ATW reportedly takes a profit of around £10m and pays a premium of around £20m to the Department For Transport. ATW's replacement should not be required to pay premiums.
 - 4.2. Assuming current service levels and that the requirement to pay a premium to the DfT is removed, the proposed not-for-profit organisation should require a subsidy of about £150m, with the £10m 'profit' currently taken by ATW used for investment.
 - 4.3. A range of alternatives to the current franchise management model should be seriously considered, such as the concession model used by London Overground and the proposed not-for-dividend model to determine which provides the best service and value for money.
 - 4.4. Integration of track and train (or rather the lack of it) has been a talking point of the UK's privatised railway model. A 'deep-alliance' between the new train operator and Network Rail, similar to that between South West Trains and Network Rail, may be worth pursuing.
5. The franchise specification should aim to improve passenger experience, including:
 - 5.1. Measures to help ensure suitable rolling stock is diagrammed for any given service.
 - 5.2. The new operator should be required to introduce either print-at-home tickets or provision for collection of pre-booked tickets from staff onboard the train so passengers are able to pre-book online even when starting their journey at stations without a ticket machine.
 - 5.3. Improved integration with other public transport, particularly bus services:
 - 5.3.1. The system needs to be more forgiving when delays to a 'connecting' bus result in the passenger missing his/her train or having insufficient time to buy a ticket before boarding the train. In the latter case they are currently breaking the law if the station they boarded at has ticket-issuing facilities. This needs correction.
 - 5.3.2. The railway Public Performance Measure only counts certain trains as 'late' when they are 10 minutes late, and then only at the terminal station. Meanwhile, the bus-shelter-style facilities at most unstaffed stations are inadequate for passengers having to wait more than 10-12 minutes for a 'connecting' bus or train. Therefore there is a

dilemma, one cannot rely on a train arriving within 10 minutes of schedule, meaning a wait of 15-20 minutes is required to get a reliable 'connection' but a wait of that length is not acceptable without a fully-enclosed waiting room. The only other alternative is to timetable a 7 minute wait between services and guarantee that the connecting bus or train would be held, but this is not possible in the vast majority of cases.

- 5.3.3. Some rail journey planners recognise destinations such as Cardigan and Brecon as valid 'stations' despite not being on the rail network. However, the journey planners are unable to find services to/from these destinations. The replacement for the ATW franchise should be required to rectify this to some extent by adding a network of core bus services (the routes (in some cases formerly) served by the TrawsCambria X40, X50, T4, X32 and X94 services at a minimum) to the rail journey planning system. If it is easier, the journey planners need not display fares or sell tickets for journeys that involve buses, just make it clear that the bus service exists and what its schedule is.
- 5.4. More thought needs to be given to capacity in the event of rail services being substituted by rail replacement 'buses' (actually coaches, a lot of the time). For example, the seating capacity of a class 158 train is around 130. A road coach seats around 50. I did not get a seat on a rail replacement coach from Welshpool to Shrewsbury when (if I remember rightly) only two or three coaches were supplied to cover for a pair of class 158s.
6. The range of routes covered in the current franchise could be improved. For example:
 - 6.1. ATW principally serves Holyhead with services from (alternately) Cardiff and Birmingham, via Wrexham, while the traditional demand pattern from north Wales is for journeys to centres like Manchester and Liverpool. Additionally, changing twice (at Chester and Crewe) is often a quicker way to get to Birmingham than staying on the through train from Holyhead. Terminating the Birmingham – Wrexham – Holyhead train at Chester, would also mean the Holyhead – Chester section (currently restricted to class 158 units with ERTMS) could be operated by other types of train. If this were to happen, the class 158s could be used to provide the long awaited Aberystwyth hourly service. This illustrates that routes operated and rolling stock are heavily intertwined.
 - 6.2. The hourly Birmingham – Aberystwyth service should be delivered, formed of a 4-coach train from Birmingham with 2-coaches detaching for (alternately) Pwllheli and Chester.
 - 6.3. The main stations on the Heart Of Wales Line (HOWL) should have a more frequent service (ideally every two hours), with journey times accelerated by not calling at the other stations. However, four trains per day (7-days a week) should serve all HOWL stations.
 - 6.4. The 'Y Gerallt Gymro' express service should be the only through train between north and south, along with a second express (perhaps 'Y Cymro Hedegog') in the opposite direction.
 - 6.5. The Swansea – Cardiff stopping service (Swanline) should be hourly.
 - 6.6. Having two-car trains from Carmarthen/Pembrokeshire extending from Swansea towards Cardiff causes short trains between Wales' biggest cities. Following electrification, all trains going into Swansea station from either direction should terminate there.
 - 6.7. All three Pembrokeshire branches should have through trains to Swansea every two hours.
 - 6.8. The Cardiff – Portsmouth service should be maintained following electrification. Ideally, this should be formed of 4-car class 158 trains with 2 coaches continuing alternately to Milford Haven and Carmarthen on an express schedule using the Swansea District Line. This extension would maintain the current frequency (hourly to Carmarthen, 2-hourly to Milford) of through trains to Cardiff, with significant time savings from using the Swansea District Line. This could possibly be a joint-operation between the replacement operator in Wales and the Great Western or South West Trains franchise.
 - 6.9. It should be considered whether the Llangollen Railway, and perhaps other standard gauge heritage railways, could play a part in the network of routes. New Network Rail track would be needed to connect these to the national network and the heritage railway could then run trains through to a national rail station. In the heritage railway's closed season national rail services could operate over the heritage line's infrastructure. In the summer,

the national rail services could be replaced by heritage services, allowing the national rail rolling stock to strengthen popular tourist services (such as trains to Tenby).

7. Rolling stock

7.1. Suitability-for-purpose, running costs and quality of rolling stock are more important factors than age. A larger fleet of trains, of a different mix of types, will be needed, but not necessarily new trains. ROSCOs have ceased buying new diesel trains due to concerns that electrification would make them redundant before they are life-expired. Buying new diesel trains should be avoided unless it is the only way suitable rolling stock can be obtained. Buying new electric stock on the other hand will be necessary if the north Wales coast line is electrified, as there is no prospect of suitable EMUs (class 444s being the only appropriate type at present) becoming available.

7.2. The fleet of class 150 suburban rolling stock released following ValleyLines electrification will not be suitable for most other Welsh routes. Class 156, class 155 or additional class 153 units should be obtained from other operators instead.

7.2.1. Given the need for only a handful of class 150s (for routes in the north-east of the franchise area), sharing this stock with the Northern franchise (as class 175s used to be shared with another operator) would seem sensible

7.3. Additional class 158 units are likely to be needed to allow train lengthening and/or additional services, for example the Portsmouth service proposed in 6.8.

7.4. Consideration should be given to replacing the cabs on class 175 units with corridor-fitted cabs (like class 158s) or converting some class 175 end vehicles to intermediate coaches to lengthen other sets to 4-car units (making the class 175 fleet a mix of 4-car and 3-car units).

7.5. Rolling stock leasing is a considerable element of the costs of running the franchise.

7.5.1. I estimate the total leasing costs for the ATW DMU fleet (not including the stock for the 'Y Gerallt Gymro' service) at around £30.2million.

7.5.2. If only one ROSCO has the rolling stock of choice they are effectively in a monopoly position. While obtaining ownership of existing rolling stock is probably impossible, it is likely that whole-life costs for any new rolling stock would be cheaper if this was purchased and owned by WAG and made available to the operator free-of-charge as part of the operating contract/franchise. Maintenance of trains owned by WAG could be put out to tender. This should be a far more competitive market than rolling stock leasing, where demand for rolling stock seems to far exceed supply.

8. Additional infrastructure required could include construction/renovation of station buildings to meet the need for waiting rooms. As noted in 5.3.2, these are a necessity for decent connections unless services connecting services can be guaranteed to be held. Provision of waiting rooms at unstaffed stations (tended to on an occasional basis, perhaps by council staff rather than rail staff) and outside staffing hours needs consideration.

9. There are several obvious voids in the rail network of Wales which would ideally be filled by constructing additional new lines (not necessarily reopening old ones, as these were often too twisty or indirect to allow journey times that would be competitive today) as follows:

9.1. Bangor – Caernarfon – Porthmadog, with enhancements to the Cambrian lines to permit a semi-fast train from Newtown to Bangor every 2 hours in addition to existing services.

9.2. Caernarfon – Llanberis (the Bangor – Caernarfon section of the line above should have sufficient capacity for frequent services)

9.3. Newtown – Llanidloes – Rhayader – Builth Wells – Brecon – Merthyr

9.4. Welshpool – Oswestry – Gobowen, with enhancements to existing lines to permit a train at least every 2 hours from Newtown to Chester via Oswestry and Wrexham.

9.5. Aberystwyth – Lampeter – Carmarthen

9.6. Rhyl – Denbigh – Corwen/Bala

9.7. Swansea District Line (near Pontarddulais) – Gorseinon – Gowerton

9.8. Aberdare/Hirwaun - Glynneath

- 9.9. Additionally, the proposed frequency of passenger trains (4tph (trains per hour) from Swansea and 2tph from Maesteg, plus the 1tph from Carmarthen via the Swansea District Line proposed in 6.8) between Port Talbot / Bridgend and Cardiff may not leave any room for freight traffic. Rather than quadruple the current circuitous route via Llanharan perhaps a second double track route, shorter, straighter and faster, could be built between Bridgend and Cardiff for the faster trains leaving the current route for stoppers and freight.
- 9.10. Many of the above (9.1 to 9.9) would likely not be affordable except, perhaps, if constructed in a piecemeal fashion.
 - 9.10.1. Detailed routes should be identified for all of the above and safeguarded from other development. Temporary use of parts of these alignments as bus-only roads could however be useful in the meantime, and should be permitted on condition that the route would be made available for the railway if and when funds are available to construct it.
 - 9.10.2. Priorities from the above (9.1 to 9.9) should be Bangor – Caernarfon, the Bridgend – Cardiff link, Welshpool – Gobowen and Merthyr – Brecon.
 - 9.10.3. The Merthyr – Newtown, Porthmadog – Bangor and Welshpool – Gobowen schemes would create a Y-shaped north-south ‘network’ similar to the HS2 proposals in England (expect Wales’ HS2 would be designed for 90mph not 250mph). Therefore, if Wales receives a Barnett consequential from HS2, it should be spent on these.
- 9.11. Freight-only lines such as Blaenau Ffestiniog – Trawsfynydd, Pantyffynnon – Gwaun-Cae-Gurwen and Swansea Docks – Glynneath could also be valuable additions to the passenger rail network.
10. Regarding other enhancements to existing lines:
 - 10.1. It is regrettable that the partial redoubling of the railway between Wrexham and Chester appears to have been delayed.
 - 10.2. Electrification of the Wrexham Central to Bidston route would be desirable, allowing through trains from Wrexham to Liverpool. In this case the route would probably transfer to the Merseyrail franchise.
 - 10.3. Electrification of the Manchester/Crewe to Llandudno/Holyhead routes would be desirable. This is another reason north Wales services should all run to Crewe/Manchester instead of one an hour being sent to Birmingham/Cardiff via Wrexham. If and when the service switches to electric traction new 3-car units similar to class 444 would be needed and the Crewe services could be extended to Birmingham, providing a through service on the fast route to replace the current trains via Wrexham. Both Manchester and Crewe/Birmingham services could consist of portions for Llandudno and Holyhead.
 - 10.4. It is disappointing that electrification of the Severn Tunnel diversionary route (Swindon – Cheltenham – Severn Tunnel Junction) is not currently planned as this would allow the hourly Swanline service to be combined with the Cardiff – Cheltenham service.
11. I note that other parties, notably RailFuture, have suggested a number of new stations on existing lines. However, the need for additional stations to provide access points to the rail network needs to be balanced against the need for journey times that can compete with cars.
 - 11.1. In the case of stations proposed between Newport and Hereford, a solution may be to introduce a new Cardiff – Hereford all-stations service, allowing the stations to open without slowing the Chester and Manchester services. Hereford would be a better final destination for additional trains from Cardiff than Abergavenny.
 - 11.2. In the case of stations on the Swansea District Line, a Morrision Parkway could be beneficial but the proposed express between Milford/Carmarthen and Cardiff/Portsmouth should call at only three intermediate stations between Carmarthen and Cardiff (Llanelli and Port Talbot Parkway, plus either Bridgend or Morrision).
12. As proposed for station signage (see 2.2), the livery used on trains should be specified by Welsh Government following public consultation, to save re-branding every time the contract is re-let. The Scottish government appear to have done the same with Scotrail. Suggestions, including use of the ‘Alphaline’ brand for which the ATW franchise currently has a licence, are attached.

13. Spending public money on enhancing the provision of less-environmentally-friendly modes of travel (car and air) is perverse. Projects such as upgrading the A40 in Pembrokeshire to dual carriageway would undermine the competitiveness of the railway and hence make the subsidy to the rail network less value for money. At the very least, if improving roads, then parallel rail routes should be upgraded to keep pace. Subsidising air travel also sets the wrong example when modal shift to 'greener' modes of transport should be encouraged. If the Welsh Government is happy to fund a plane service why should people switch to rail?
14. Please contact me if you would like clarification or further details on and/or the reasoning behind these suggestions.
15. Also attached is a Google Earth .kmz file containing suggested routes for some of the proposed additional lines.

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Branding The Rolling Stock

This document proposes possible standard liveries for the trains used on the Welsh rail network under what is currently the Wales & Borders rail franchise, operated by Arriva Trains Wales. It is proposed that the successor to Arriva Trains Wales be known as Rheilffordd Cymru, using the logo above. It is suggested that different liveries be used on different types of rolling stock, categorised into mainline trains and other trains.

Mainline Rolling Stock

This category contains two subcategories. The majority are the 'Regional Express' class 158 and class 175 trains while selected express services use *INTERCITY* rolling stock.

Two possible livery themes are suggested for mainline rolling stock. One is to use a Welsh-themed green, white and red colour scheme, inspired by the livery used by the former ValleyLines TOC, which would also be used on non-mainline rolling stock. The other suggestion, to provide clear differentiation between mainline and other trains and avoid a full repaint of some trains, would be a variation on the livery carried by ATW class 158s. The lighter shade Arriva-Swish would be covered in the same dark teal as the rest of the train and the doors repainted to match the lines on the body-side which would be extended to the inner end of the carriages rather than fading out.

Class 158 - 'Alphaline'

The 'Alphaline' brand was developed by British Rail for services operated using class 158 units. Wales & West subsequently went on to include the brand in their livery for class 158 units. I suggest restoring Alphaline branding to Wales' class 158s following works to ensure



reliability of the air conditioning which is currently the main weak point of these otherwise ideal regional express trains. The illustration of the Welsh-themed livery suggestion is based on the following source image: http://commons.wikimedia.org/wiki/File:South_West_Trains_DMU_158789_at_Bristol_Temple_Meads_01.jpg



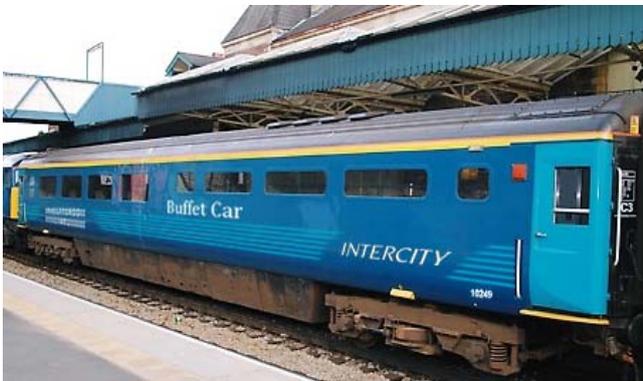
Class 175

The illustrations of the two livery suggestions for this class are based on the following source image:
http://en.wikipedia.org/wiki/File:175008_at_Newport.jpg



INTERCITY Rolling Stock

The premier mainline rolling stock, currently used on 'Y Gerallt Gymro', featuring locomotive-haulage and a buffet car serving hot breakfasts and evening meals, could be specially branded as *INTERCITY*. Trains like this would be welcome on some of the Manchester - Cardiff/Swansea services, alongside class 175s.



The base image for the illustration of the 'minimal repaint' option (left) was:
http://commons.wikimedia.org/wiki/File:BR_Mk.IIIa_RFM_No.M10249_%286801913699%29.jpg

The more colourful suggestion is illustrated using two pictures, one based on: http://en.wikipedia.org/wiki/File:Chiltern_Mk3_DVT.jpg and the other on: http://en.wikipedia.org/wiki/File:Chiltern_Mk3_Std.jpg

[File:Chiltern_Mk3_Std.jpg](http://en.wikipedia.org/wiki/File:Chiltern_Mk3_Std.jpg)



Other Rolling Stock

This category also contains two subcategories. 'Rural' trains (classes 156, 155 and 153) intended for longer distance services on secondary and branch lines and 'Suburban' types with doors part way along each carriage (rather than at the ends) intended for short distance services or stopping trains on mainline routes.

Class 377 (Suburban)

In 3-car form, these outer-suburban trains would be useful for the Maesteg and Ebbw Vale services, along with the Swanline stopping service, following electrification. The illustrations show two possible

arrangements for the colour scheme.



The Source images of the trains are from: http://commons.wikimedia.org/wiki/File:377158_at_East_Croydon.jpg and http://commons.wikimedia.org/wiki/File:377107_at_East_Croydon.jpg, the



background images of Cardiff Central are: <http://commons.wikimedia.org/wiki/File:ATW-143608-CardiffCentral-01.jpg> and: http://en.wikipedia.org/wiki/File:Cardiff_Central_railway_station_-_east_end_01.jpg

Class 153 / Class 155 'Super Sprinter' (Rural)

These units were all built as class 155 2-car sets. Subsequently, most were converted to single car units and known as class 153. It is suspected that class 153s will need to be converted back into 2-car units (class 155) to comply with accessibility regulations coming into force in 2020 due to the space taken up by accessible toilets. The class 153 pictured is based on this photograph: http://commons.wikimedia.org/wiki/File:153369_C_Bristol_Temple_Meads.JPG



Class 156 'Super Sprinter' (Rural)

The other option for rural services are class 156 units. The illustration, based on an image found at: http://commons.wikimedia.org/wiki/File:156451_at_Lancaster.JPG, shows another way the colours in the suggested livery could be arranged. Perhaps this could be different on different kinds of stock.



Future Rail Routes - Wales

This document presents a number of screen shots from Google Earth showing the place mark lines for proposed rail routes included in the "Some New Line Route Proposals.kmz" file included in my response to the future of the Wales & Borders rail franchise inquiry. The existing rail lines shown in some of the screenshots are not included in the .kmz file.

Below: North Wales, showing the proposed routes included in the .kmz file.



Above: The proposed lines included in the .kmz file, displayed in Google Earth

Right: The proposed Carmarthen - Aberystwyth and Newtown - Merthyr Tydfil routes



Below: A more-detailed view of the two alternative route proposals from Llanfarian into Aberystwyth



Below: Close-up of part of the Carmarthen - Aberystwyth route, showing one of the proposed tunnels to shorten the old route.



Right: The Welshpool - Gobowen route.

Below: The existing Welsh passenger network plus the proposed 'north-south Y-Network' (Bangor - Porthmadog, Welshpool - Gobowen and Newtown - Merthyr)

