

The billions in rail and bus investment that Wales needs

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How do we fund and deliver a major programme of public transport enhancements, including rail in Wales, to deliver on decarbonisation targets to 2030 and beyond?

Despite significant under investment in rail enhancement projects in Wales by UK governments over the last few decades, this will require collaboration between both administrations in Cardiff Bay and London to investment more than £4bn in our rail network.

I am not underestimating the challenges and despite the frosty political rhetoric of late the relationships between officials in Welsh Government, the Department for Transport (DfT), Network Rail (NR) and Transport for Wales (TfW) are as good as I have ever known.

There does seem to be a commitment to try and work together, despite the constraints and limitations of the rail industry and government eco-system in Wales.

So, there is an opportunity to bring together Welsh transport and economic policy with the UK Government's stated aim to level up all within the context of our collective and urgent need to decarbonise our mobility ecosystem.

Here I set priority projects in Wales

The South Wales Mainline (SWML) upgrade

Covering the main line from Milford Haven to Bristol Temple Meads, this line (like Trans Pennine) is a key piece of the UK's transport infrastructure and probably needs a 10-year enhancement programme of around £1.5bn. This corridor connects over three million people and is a major component of the UK economy.

This programme should cover:

- Line speed and capacity improvements to bring it up to approaching the same capability as the other "mainlines in the UK.
- Additional express and all stopper services, including faster services to Carmarthen and West Wales and further Bristol Temple Meads.
- Around 10 new stations to support the new all stopper commuter services, including consideration of: Magor, Llanwern, Newport East, Newport West, Cardiff Parkway, Newport Road/Rover Way, Rumney, Miskin, Landore and Cockett.

This combination of rail services and stations will deliver the essential public transport backbone across South Wales and are vital to give improved local bus services and bus rapid transit in Newport and East Cardiff something to integrate with. They will also complement further enhancements to the South Wales Metro and the introduction of a Metro in Swansea Bay.

We also need to deliver electrification to Swansea/Carmarthen from Cardiff and into Bristol Temple Meads. This will help enable all electric rolling stock options on some Bristol Temple Med to-Swansea services and reduce the costs of the

Swansea Bay and West Wales rail enhancement and local Metro

There is an emerging package of measure of perhaps £500m that

can be linked to interventions that enable the re-location of employment, such as the DVLA, and public services back to key transport hubs around the region; especially to Neath, Swansea, Carmarthen (which is the best location for a West Wales Parkway), Haverfordwest, etc. The key interventions include:

Enhanced local rail services west of Swansea all the way to Milford Haven aligned to a range of tactical infrastructure enhancement – these complements some of the South Wales Mainline measures set out above.

An initial phase of the Swansea/Neath/Llanelli urban area rail Metro including perhaps six new stations on the SWML and Swansea District Line with services from: Pontarddulais via Neath to Swansea High Street and Bury Port to Swansea High Street.

A range of local bus prioritisation and segregation measures – esp. in the urban areas of Swansea, Neath and Llanelli.

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Cardiff/Cardiff Capital Region and expansion of the South Wales Metro

There is likely a package of priority interventions of £1 to 1.5bn covering Network Rail's rail asset (so the responsibility of the DfT and UK Government), the Core Valley Lines (a Welsh Government responsibility), and bus measures.

This programme which whilst a subset of, is consistent with, the recently published Cardiff Capital Region's passenger rail vision which I helped prepare earlier this year which also set out a range of transport enabled local economic development and regeneration opportunities including Cardiff Parkway, Newport City Centre, Cardiff Central/Bay, Bridgend Town Centre, Merthyr, Pontypridd,

The major components include:

- Some major bus rapid transport and bus segregation/priority measure in Newport and Cardiff.
- Frequency enhancement to Ebbw Valley with 4tph (four trains an hour) and Maesteg (2tph). The City and Coryton lines in Cardiff need interventions to give passenger a more useful and appropriate service frequency.
- A package of Core Valley Lines enhancement to follow the introduction of new electric tram-train and tri-mode services in 2023/4.

This will include seven or eight further stations to extend

the reach of the network and measures to enable four trains per hour on the City and Coryton Lines in Cardiff.

This will deliver much enhanced integrated public transport in the most populated part of Wales and will likely be a major component of the Co2 reduction required. It also requires measures to address bottlenecks on NR's rail asset at Cardiff West.

The section of Cardiff Crossrail from Cardiff Central via the Bay to Splott/Tremorfa back to the SWML at Rover Way (with the potential for the tram-trains to operate onto the SWML serving new local stations and so avoiding potential capacity constraints at Cardiff Central.

The Bay line and its extension as part of Crossrail is something I have made the case for on numerous occasions. One might argue that this intervention is half a Core Valley Lines asset, and half a NR asset and so should attract split funding from the Welsh and UK governments

The Core Valley Lines extension from Aberdare – to Hirwaun providing enhanced access to the Brecon Beacons and the A465

Some cross Valley rail and bus prioritisation measures to help build the regional strategic public transport grid as set out in the Cardiff Capital Region's passenger rail vision.

North west corridor (from Cardiff to lower Rhondda Cynon Taff) bus and bus rapid transport measures in advance of a comprehensive tram-train solution.

Electrification of the Vale of Glamorgan line to Barry/Penarth.

North Wales Metro programme

There is already significant political and regional stakeholder support for an initial programme of perhaps £500m that will help reduce the primacy of car use, especially in

north east Wales and help support economic development and regeneration at places like Wrexham, Deeside Industrial Estate and Chester (yes even in England).

Priority schemes include:

- Introduce line speed capacity and reliability enhancements on the North Wales Mainline (NWML – especially in around Chester.
- Three or four new stations and importantly the introduction of dedicated local all stop commuter services on the NWML.
- To complement the NWML a range of measure to enable the borderlands line to support 2tph with new and upgraded station (inc. Shotton and Deeside). Later, the full ambition is for 4tph and eventual full integration with the Merseyrail network.
- In the medium/longer term NWML electrification and service integration with HS2 via Crewe and Northern Powerhouse Rail.

Like in the Cardiff Capital and Swansea Bay regions a range of complementary bus prioritisation/segregation measures as part of a comprehensive rail/bus integration. Local active travel measures will also be required.

Other opportunities

We also need to look at innovation and different rail standards to allow us revisit old routes and/or new alignments where a traditional heavy rail approach will not work, however much we might want it.

The need for comprehensive network interoperability is a constraint in places in the UK where the application of mainline heavy rail standards is not the right solution. This is true in parts of West Wales and North West Wales and I suspect other parts of the UK as well.

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Who pays?

Well, any operational costs will clearly fall mainly to Welsh Government, via TfW and its rail services operations, and certainly all of the Core Valley Lines and additional bus operations. For the capital expenditure, then in principle the majority of costs for enhancing the NR asset should fall to UK Government, given Welsh Government will have to cover the Core Valley Lines costs and bus measures.

The total cost of this 10-15 year programme in capital expenditure terms is perhaps £3bn to 4bn.

This is really small beer when compared to the other big rail enhancement schemes in development or delivery around the UK. For example, the £108bn for HS2, likely further billions for Clapham remodelling, Trans Pennine upgrade and East-West Rail. In just the 2019-29 period there are about £50bn of committed rail enhancements in England versus just £350m in Wales. A more “Barnet” like allocation would see perhaps £2bn to £3bn being spent in Wales.

If Welsh Government can put in £1bn-1.5bn on the table, then the Boris Johnson’s administration should be able to find £2bn-3bn via a ring fenced Welsh rail enhancement fund perhaps, noting that a very significant portion of the investment required is on rail asset which is the responsibility of UK Government.

Both governments could work up a strategic 10-year programme that will tick boxes: decarbonisation, local economic development and regeneration and delivering on Mr Johnson’s “levelling up” agenda.

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- Mark Barry Professor of Practice in Connectivity at Cardiff University and developed the vision for the South Wales Metro project.