LOOKING BEYOND **SEE TO A FULLY INTEGRATED**

public transport network

IN THE SOUTH WEST

We can have a joined up national public transport network tomorrow. All that's needed is to take down some artificial barriers, and we can do this using new digital information systems.

Getting the bus and rail networks to 'talk to each other' for the benefit of passengers requires recognition that together they can provide the nation with a resource of great value and a source of national pride.

We need to do this – and we can do this – in a way that tackles two major short-comings of today's rail service:

- its incoherent fares system
- poor levels of accessibility.

Britain's national rail service has had the fastest growth in patronage of the major European nations, having quadrupled its passenger revenue since 1994–5. Alongside rail, and largely hidden from view, is a high quality interurban bus network, also prospering, and which offers access for all, including wheelchair users. Together they can offer national public transport coverage at a strategic network level. While 'public transport' centres on bus and rail, other sustainable transport modes including walking, cycling and taxis have a role to play.

Exploiting digital systems

Existing user-friendly service information platforms could be readily integrated across road and rail; a key challenge is to add to them a simplified fares system usable across the transport modes. We know it can be done. While Trainline, for example, doesn't offer a London to Bude through travel ticket (train to Exeter, bus to Bude), for a few rail-bus journeys (for instance from London to Wisbech), this facility is available. There is no reason why it can't be extended across the country.

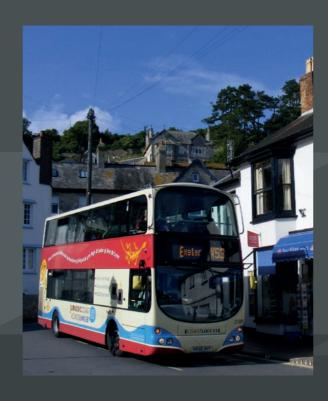
Greengauge 21 research has shown that while interurban bus services may be wellknown locally, their extensive, indeed nationwide, coverage has low awareness levels.

New easy-to-use options such as Uber allow spontaneous travel decisions appealing to younger people for whom timetables and complex fares rules are a strong negative. But digital developments centred on car-based travel (Uber, etc.) put congested highways under even greater strain. Our aim is to identify how digital developments can put easyto-use joined-up travel by public transport in the hands of any smart-phone user.

An integrated network for the South West

Together, the rail and interurban bus networks provide truly national coverage. They serve cities and towns and many villages. They provide a framework for more local services, typically within urban areas, serving the 'last mile' of people's journeys. They serve places of prosperity and those often described as 'left behind'. Very often, interurban buses serve places that once had rail services before local branches were cut in the British Rail era (or even earlier).

We need to face facts. While some lost railway lines will be re-opened, each is an expensive proposition and most attempts will fail. Only those rail line re-instatements where there is a strong strategic case are likely to succeed. In the South West, we believe there is one such scheme and that it has one of the strongest cases of the many ambitions across Britain.



Bude-Exeter bus at Holsworthy

Take a look at today's joinedup public transport service map for the West Country. All of the key destinations can be accessed by interurban bus and rail, instead of being swamped by visitors using cars, whose drivers are no doubt unaware of the comprehensive travel facilities on offer. But there is a resilience question.

Cornwall County Council is

leading the way in establishing a fully joined-up bus-rail network. It has secured contactless payment systems on all the bus companies providing services in the county, and it is going to introduce an alloperator (rail and bus) ticketing system, with separate products tailored for residents and visitors, and a regular interval timetable designed to allow good connections between rail and bus. This is the rural equivalent of what has been achieved in London and shows that the building blocks for the national system are already being established and needn't rely on bus franchising. Extending the Cornwall approach across the wider South West would be a good next step, mirroring extensions of the Transport for London fares systems into the surrounding shire counties.

A simplified integrated ticketing system

The problem of simplifying the national rail fares system generally comes up against this problem: rationalisation requires some fares to rise significantly (even as others fall). were available. As these are

But there is a solution. First, an 'all-mode' fare needs to be made available for use now exist across the relevant bus fleets and at most railway alongside existing fares.

process of fares simplification and zonalisation across Greater of use of multi-modal zonally Public transport revenues go up.

In due course, less frequently used tickets can be withdrawn. This was the tactic used across London, where once a multitude of station-to-station rail tickets 'split ticketing', which renders cheapest rail fare, can be ended.

the opportunity to better personalised charging levels based on age, employment status, need to make essential care facilities) etc. It is possible to set larger zone boundaries built bias for those who must travel further in remoter areas – so much better than the permile historic basis of rail fares.

Dorchester West Infrastructure

A joined-up network requires a range of new measures, starting with simple low-cost information and wayfinding.

While rail stations are relatively easily found by visitors and occasional travellers (the BR red double arrow sign has survived 50 years already) we need a new, equivalent designation of interurban bus, so that their terminals and bus stops can be readily found, especially for those transferring from rail. Perhaps a twin chequered flag sign would serve the need.

We need to see an improvement in the directness and ease of transfer between rail and interurban bus. Treating rail/ interurban bus together at key locations where they come together is what's needed. Instead of stations, we will be planning interchanges. Around them, mini-clusters of business and service activity are likely to materialise and should be encouraged by planning policy.

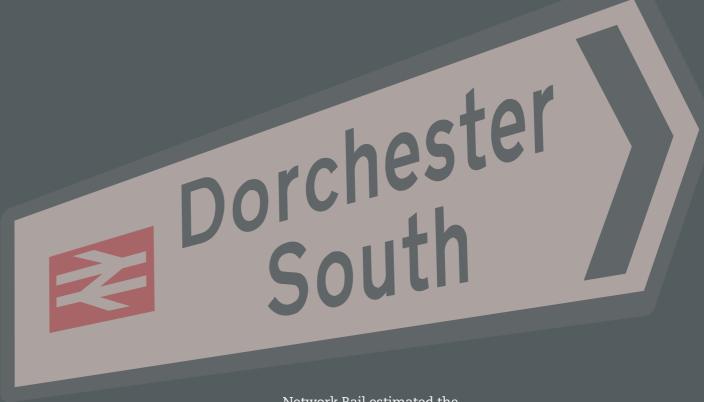
In time, opportunities will arise to re-master timetables to improve the convenience of bus-rail transfers. Regular interval timetables already exist extensively on both rail and interurban bus networks, and this is a key aim in the Cornwall initiative.

Over the years, timings for interurban buses have been getting slower and slower. Urban congestion is to blame and measures to provide priority measures for interurban as well as urban bus services are needed.

The case for Plymouth-Tavistock-Okehampton-Exeter line re-instatement

When the Dawlish sea wall was breached five years ago, for two months, Plymouth, Torbay and Cornwall had no train services to the rest of the country. With widespread media coverage, tourism chiefs had to reassure the public that the West Country was 'still open for business'.

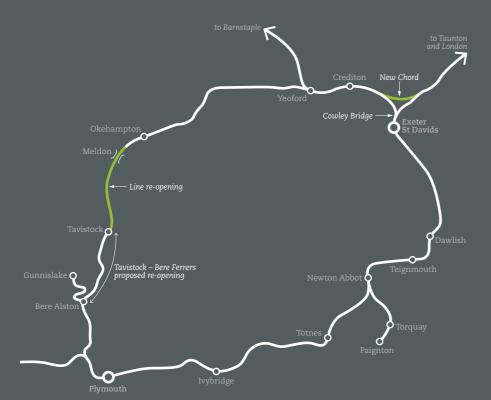
Fast forward five years, and Cornwall/South Devon is still in need of reassurance. It has become clear that while the February 2014 breach was dramatic, further similar events are unavoidable. Indeed, as Prof. Jon Shaw of University of Plymouth along with colleagues at Leeds and York Universities have shown, the problem is one of rising sea levels compounded by more extreme weather events.



Full line closures can be expected to increase from the current average rate of one every other year; to once every year by 2040, and by 2100, three times/ year. By this stage, on average, on three days per week there will be speed limits in place affecting rail operations on the line through Dawlish. While nobody proposes to abandon the line via Dawlish, the costs of keeping it in place are high and even then, services will be periodically cut and, on many more occasions, journey times will be extended with speed restrictions applied.

Network Rail estimated the cost of a second line around the north side of Dartmoor at £875m in 2014, significantly less than the inland tunnelled options examined for a possible Exeter-Newton Abbot cut off (which were costed at up to £3bn). But according to Network Rail's assessments, none of the options had a good business case. Estimating the value of resilience – of retaining connectivity and service continuity through periods of disruption – is not straight forward and more is now known about how often such events are likely to recur.

It is surely time to progress the creation of a second railway across Devon. To do so, we need to be clear about objectives. This route would not even be considered were it not for the function it can fulfil as an alternative to the route via Dawlish. It means that a re-instated line needs to offer journey times for Cornwall/ Plymouth services to the rest of the country similar to those achieved via Dawlish.



Greengauge 21 examined the case for re-opening the Exeter-Okehampton-Tavistock-Plymouth line in a report published in June 2015¹. The line serves a hinterland that is one of the least accessible parts of England, furthest from a railway station, and with low pay levels and poor work opportunities. This is a region where access to higher education is a major challenge. For young people, one choice may be leaving home, but this reinforces the trend of rural depopulation and results in growing age and skills imbalances. Rail services direct to city centres offer a way to change this trend. The main highway network cannot deliver congestion-free access to the cities of Exeter and Plymouth.

Tavistock & Okehampton will each grow if the railway service is opened. Research with
Tavistock residents shows that the wider public is well aware of this linkage. This is the type of sustainable development that rural areas need, consistent with long-standing British town and country planning practice.
Project appraisal must take this beneficial factor into account.

At a time when other regions will become better connected with London, the South West, as a minimum, needs to protect its existing journey times year-round. With just two intermediate station calls, and a cut-off to the north of Cowley Bridge junction (see map below) journey times could be shorter than those today from Cornwall & Plymouth to Bristol and London.

Connecting the South West with the rest of Britain

The Greengauge 21 report
Beyond HS2 of 2018 set out a
long-term plan for Britain's
railways. It provided a strategic
blueprint to connect the
South West better with the
rest of Britain. The pattern
of interventions needed –
for the country as a whole
and for the South West – is
illustrated overleaf.

Some routes should be upgraded to provide better connectivity and capacity, alongside major new high-speed lines (HS2). HS2 should be converted from a Y-shaped network to an X-shaped network, integrated with line-of-route upgrades. This can better connect the South West with the Midlands, the North and Scotland.

Research carried out for the former South West Regional Development Agency showed that journey time to London is a crucial factor and economic development drops away at locations beyond a two-hour access time to London. Between the South West and London, the 2-track section of line that carries the greatest and more intense traffic mix, where passenger train load factors are higher than further west is between Taunton and Reading, and investment should be made here to increase line speeds for longer distance passenger trains and in effect to create four track sections where fast trains can overtake slower ones (especially aggregates train from the Mendips quarries).

Better access to Heathrow can be provided by the planned western connection and this should provide direct services from the South West, not just local services to Reading.

Greengauge 21

Greengauge 21 is leading transport Think Tank. It is entirely independent and operates on a not-for-profit basis. We research and promote the benefits of better, more sustainable, transport. Greengauge 21 initiated a national debate on high-speed rail upon its launch in 2006, and that was swiftly followed by cross-party political support to develop what became HS2. In 2018, we published a major review of the rail sector and set out what has been lacking: a comprehensive long term national rail plan, in a report entitled Beyond HS2.

This report took as its central theme the role that the rail network could take in achieving national economic objectives (in particular, improving productivity) and looked at places 'left behind' as well as the main drivers of rail demand, the large cities. But rail isn't always the answer and in 2019, Greengauge 21 is focusing on the challenge of creating an easy-to-use joined-up national transport network that doesn't rely on private car use.

The needs of the English Regions and Wales and Scotland differ.

There are many impressive local developments, but they can only fully deliver on their potential if improved services are accessible to all, including with much simpler and fairer ticketing systems, available across the various public transport modes.

All our research reports are available free to download on our website:

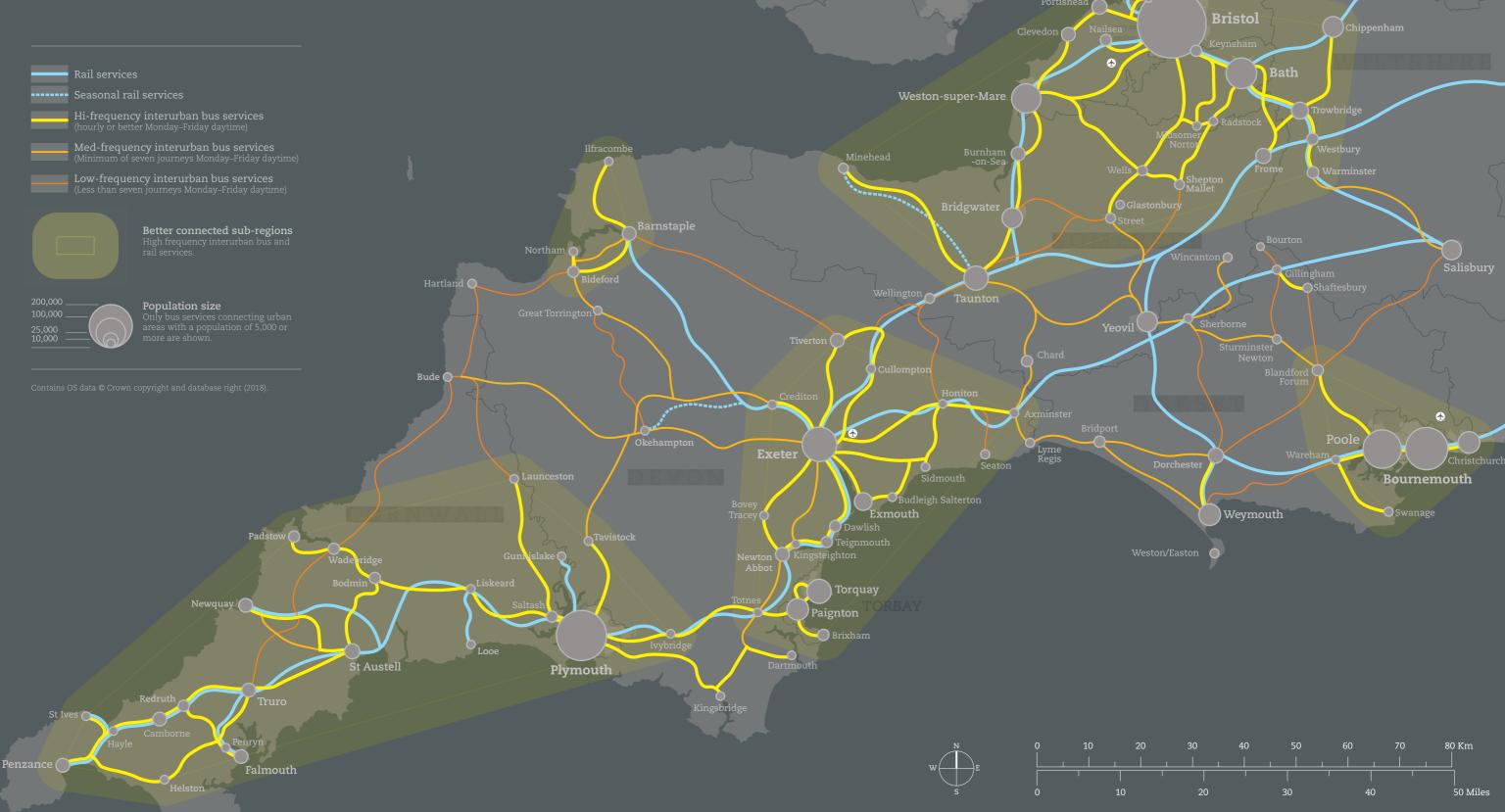
www.greengauge21.net

And if you wish to get involved, you may contact us at:

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1. Rural reconnections: the social benefits of rail reopening Exeter-Okehampton-Tavistock-Plymouth, a casestudy, Greengauge 21, June 2015, available at www.greengauge21.net

West Country interurban bus and rail network



Source: Greengauge 21

