UNION CONNECTIVITY REVIEW

Evidence from Transform Scotland

30 December 2020

About Transform Scotland

Transform Scotland is Scotland's national sustainable transport alliance, campaigning for a transport system which is environmentally sustainable, economically responsible and socially inclusive. We have around 60 member organisations across the private, public and third sectors. We are politically independent, evidence-based and strictly not-for-profit, with an elected board of directors drawn from business, local government and charities.

Assessing the need for cross-border connectivity

Q3: In general terms, is there a need for new or improved transport links between the nations of the United Kingdom?

Yes. The key question, however, is what kind of transport links are 'new or improved' in the social, economic and environmental conditions that will be critical over the 20-30 year horizon of the Union Connectivity Review and beyond.

We are firmly of the view that the Review must not simply recommend 'more of everything'. Its recommendations must be rooted in principles of social and economic equity, and particularly in addressing climate change and other environmental problems. Over the next 20-30 years, economies that do not address environmental needs will not be successful. They are also likely to be socially unsuccessful.

Whilst there are strong cultural and economic links between Scotland and Ireland (both Northern Ireland and the Republic), for the foreseeable future most passenger and freight transport between Scotland and the rest of the UK will continue to flow mainly on a north-south axis. This is likely to be the case whatever the medium/long term constitutional relationships. It is simply because of two factors (which dominate travel and transport patterns almost universally):

- Population distribution
- Economic activity

That is not to ignore the importance of connections between Scotland and the wider world; but that is not within the scope of this Review.

We anticipate this would be the case even in a hypothetical future scenario where 'leisure' (however that is defined) takes a larger role in transport demand.

This may be illustrated (but is not fully covered) by considering tourism, which is both a leisure activity and a significant economic sector. It comprises 5% of Scotland's GDP, (compared to financial services 7%), with an estimated value exceeding £10 billion; providing more than 8% of Scottish employment.

There were over 14 million 'visits' to Scotland in 2019; mostly from Scotland, but visits from England or Wales exceeded 6 million; Northern Ireland comprised only 258,000. (In terms of 'nights stayed' the rest of the UK exceeded Scottish residents).

Q4: What are the main obstacles and challenges in improving transport connectivity between the nations of the UK?

There are few significant geographical obstacles to connectivity within the UK mainland. This is illustrated by the existence of strong economic, social and cultural links over hundreds of years.

The issue of distance is relative; even the traditional 'Land's End to John O'Groats' (970km) is a short journey compared to an equivalent in many other states. It follows that the issues here are primarily political and organisational.

However, there are notable exceptions. The Irish Sea is a significant barrier between Northern Ireland and the rest of mainland UK. More significantly from a Scottish perspective, there are significant transport challenges between different parts of Scotland. Even in mainland Scotland, the furthest distance between two points is 450km, i.e. nearly half the distance between Land's End and John O'Groats.

Furthermore, the obstacles and challenges to connectivity between parts of mainland Scotland and the islands are critical. The example of transport between the Shetlands and the main population centres of the Central Belt illustrates one challenge we pose to the Union Connectivity Review (Glasgow to Lerwick c. 513km): is it about connectivity between the rest of the UK and Scotland, between the rest of the UK and the Central Belt, or the Central Belt plus the northern cities of Aberdeen and Inverness?

Therefore we suggest that the main obstacles and challenges to transport connectivity within the UK are actually conceptual. It appears to us that the issues and needs of transport connectivity within, to and from Scotland are not well understood by those who hold key powers in the UK.

Q6: When making transport investment decisions that aim to improve connectivity between the different nations of the UK, does the current appraisal framework capture all the potential impacts?

No. Transport appraisal methodologies change over time, reflecting the different priorities society places on different factors. For example, the Department for Transport's website posted documents regarding changes to methodologies as recently as July 2020 (and of course the Green Book amendments on 25 November 2020). However, the kind of investment decisions considered within this review are ultimately political.

It is not unknown for appraisals to be skewed to reflect political priorities. For example, appraisal of the case for dualling the A9 to Inverness was weighted to take account of 'driver frustration' as otherwise a business case could not have been made.

Over the next 20-30 years, much greater weight must be given to considerations of, for example:

- Environment (especially climate change)
- The 'Levelling up' agenda.

At present we can only note the Chancellor's announcements of 25 November 2020, with the stated intention of reforming appraisal methodologies. It is significant, but the detail will be critical.

Q7: Which specific journeys would benefit from new or improved transport links?

Our previous comments show how a key issue is ensuring many more north-south journeys are made sustainably. Notwithstanding the points made in answer to question 4, we can assume that strategic transport links between England, Wales and Scotland will pass through the Central Belt of Scotland (for Northern Ireland, see questions 9 and 10)

Physical, economic and social geography identifies two key corridors:

1. The south-east of England to/from central Scotland

2. The west of England to/from central Scotland

Corridor 1 also serves the major population and economic centres on the east side of England (corresponding to the A1/ECML routes), while Corridor 2 serves those on the west side of England (corresponding to the M6/WCML). The issue is then simply how to improve those corridors. Note that connections between Scotland and the north of England are at least as important as those between Scotland and the south of England; and they are also served by those routes.

East Anglia and north Wales can, in principle, be easily linked to these strategic corridors. The west of England and south Wales are more problematic, and have historically been poorly connected with Scotland.

The issues are therefore:

(a) How to improve links on corridors 1 and 2

(b) How to establish new links between the west of England, south Wales and Scotland.

There are over 40 flights per day between Edinburgh alone and the 'London airports'. It will be clear from our previous comments that this is a problem. HS2 should address it. Once built (and there is a case for an even more extensive project), travel by car and air to/from Scotland should become residual. It is expected that HS2 will clear sufficient capacity on the existing network to substantially shift freight on corridors 1 and 2 to rail. The challenge then becomes how best to establish the connections to HS2; Northern Powerhouse Rail illustrates some of the options here.

Establishing new links between the west of England/south Wales and Scotland is more complex, and requires careful examination in its own right. Currently, public transport connections involve unattractive journey times, with the result that, for example, Edinburgh-Bristol is the 15th busiest domestic air routes in the UK, and the 2nd busiest non-London domestic route.

We are pleased that the Union Connectivity Review will consider connectivity to/from strategic nodes. Strategic projects recommended by the review must address the question of how people or freight get to and from them. The point is illustrated by the Scottish Borders, which could benefit significantly from extending the reopened railway from Tweedbank to Carlisle, to connect with HS2 and the WCML at Carlisle (as well as improving local travel),

Note that we have not explored the possibilities of maritime transport (passenger, freight, or both) as a means of providing new or improved links. This requires examination in its own right.

a) What would be the benefits of improvements to these specific journeys?

We are not submitting evidence/views on this question as it will be clear from our earlier answers, and others will no doubt cover it comprehensively.

b) Are you aware of any work that has been done to assess the need or feasibility of improvements to all or part of these specific journeys?

For example, see 'Fast Track Scotland', 'High Speed Rail Scotland' and websites such as http://www.greengauge21.net/

c) How would the costs and benefits of the identified improvements be distributed?

See above.

d) How will demand for these journeys change in the future?

At the time of writing, during the second wave of COVID-19, it is clear that transport and travel is undergoing massive change. Any future projections must be even more tentative than usual.

There has been extensive media discussion about the extent to which communications technology will reduce the demand for travel. At its most extreme, this is expressed as 'we'll all be working from home'; which is a blinkered view of how most people work and live their lives.

As the pandemic progressed, more measured considerations came to the fore, recognising that, although some activities can be done remotely, there are powerful physical, emotional, economic, social and practical reasons why direct human contact remains important.

It may well be the case that the pandemic will merely accelerate previous trends, such as the declining use of season tickets.

We believe that communications technology can, ideally, reduce a substantial portion of unsustainable travel. However, there will still be a significant enough volume of physical movement of people and goods for investment in sustainable capacity to be needed.

e) In your opinion, what is the preferred means by which to improve these journeys?

For practical purposes, it is assumed that the means of transport over the strategic links considered by the review are: rail, road, air or maritime. Walking and cycling are critical for accessing these modes, but they are unlikely to cater for significant numbers of strategic cross-border movements on their own.

This review should dispense with ideas based on new and unproven methods of transport. No doubt some submissions will suggest that electric and/or autonomous cars, and hyperloops or similar, are the solution to any and all future problems. However, transport history is littered with revolutionary concepts which in reality had limited impact. Indeed, the main modes of transport being used in 2020 all existed in 1920.

Therefore, as indicated above, the emphasis for strategic links should be on modal shift away from air and car/lorry/van towards rail and bus; but taking into account the importance of other modes to connect with the strategic links.

To be clear, as set out above, zero-carbon air travel is not going to provide an alternative to shifting current domestic air travel to rail. Neither will autonomous vehicles provide a magic bullet. Electrically-powered road vehicles (albeit perhaps only light vehicles, not HGVs etc) are a more mature technology. Nevertheless, the implications for the UK's power supply capacity of a substantial shift to electric power while recent traffic levels continue are not clear. Furthermore, switching the power source does not address the other negative impacts of high traffic levels.

It follows that current road capacity is more than sufficient. Reducing road travel demand is the appropriate method for creating capacity. Significant road-building is not appropriate.

With regard to rail, HS2 and NPR will provide significant additional capacity over part of the network, but further rail enhancement will be needed, for example on, or parallel to, the WCML north of Preston, and the ECML dependent on NPR outcomes.

Our reply to Question 7 noted the importance of connections. As well as physical connections, such as at Carlisle for HS2, much remains to be done with regard to information and ticketing. Traveline Scotland is a good example of how to provide information, albeit one which deserves much wider recognition.

f) What would be the environmental impact of improving these journeys in the way that you have identified?

We are not submitting evidence/views on this question as it will be clear from our earlier answers, and others will no doubt cover it comprehensively.

g): Are there any interdependencies with other policies that may impact the deliverability of the identified improvements?

We are not submitting evidence/views on this question as it will be clear from our earlier answers, and others will no doubt cover it comprehensively.

Connections to Northern Ireland

Q9: With reference to the unique geographical position of Northern Ireland, please set out how best to improve cross-border transport connectivity with other UK nations

1. Analysis of current & historic travel demand between Scotland and Northern Ireland

Ferry currently provides the majority (64%) of passenger journeys between Scotland and Northern Ireland, with aviation providing the balance.[1] We are unable to cite equivalent data for freight tonnage, but we would imagine that this would be overwhelmingly seaborne rather than airborne. As such, sustainable transport modes (ferries & shipping) currently provides the bulk of travel on this route; this is not the case for Anglo-Scottish travel, where aviation dominates for passenger traffic & road freight for goods traffic.

Transport Scotland provides statistics on ferry traffic back to 2008; this reports that there has been a 10% decline in ferry passenger traffic to date (from 1,938,000 to 1,750,000).[2] CAA data shows a 20% increase in air passengers from 827,857 in 2008 to 989,610 in 2019.[3] As such, there has been a decline in the overall travel market between Scotland and Northern Ireland over the past decade.[4] This period has also seen a reduction in travel origins/destinations, with the removal of ferry services from Stranraer and Troon, and air services from Dundee and Prestwick.[5]

2. Opportunities for improving sustainable transport

Improvements should focus on sustainable transport access to the ports on both sides of the Irish Sea (although, as a Scottish organisation, we will limit our comments to those pertaining to our side of the Sea). The current situation, following the cessation of ferry services from the rail-connected Stranraer in 2011, is that effectively all access to Cairnryan is by road. Bus connections from the Ayr railhead are available, as is a bus connection from Stranraer; however, the latter is not attractive given the slow line speed & limited service pattern on the Ayr-Stranraer railway line. We are unable to provide modal share statistics for sustainable transport access to Cairnryan, but we would expect this to be low. As such, attention should be given to:

(i) Improving direct bus links from Edinburgh/Glasgow/Dumfries/Carlisle to Cairnryan;

(ii) Improving bus interchange from key points on the rail network (e.g. Ayr, Dumfries);

(iii) Improving the Ayr-Stranraer railway line;[6]

(iv) Extending the Ayr-Stranraer line to Cairnryan; and

(v) Reopening the (Carlisle-)Dumfries-Stranraer railway line.

There may also be ferry port and vessel improvements at Belfast, Larne & Cairnryan, but we suggest that the ferry operators and the relevant local authorities would be in a better position to advise on this matter.

3. The option of a fixed link

The Review asks us to 'consider all possible transport options, including maritime, air and... a fixed link'.

The statistics we present demonstrate that there has been no increase in overall travel demand between Scotland and Northern Ireland over the past decade — and, as such, no evident need for an additional transport connection to be provided.

We have seen a number of speculative cost estimates of the order of £20-30bn, and these may still be 'optimistic' given the cost-escalation evident in schemes such as HS2 — but also across the Scottish Government's road-building programme.

We are unaware of any evidence on the environmental impacts — or benefits — of a fixed link. It is conceivable that these could be positive — for example, emission benefits through a reduction in flights — but, at this stage, this remains entirely unquantified.

What we are certain is that that '£20-30bn' could be more sustainably and productively invested in a range of other, better-deserving transport schemes which would produce much higher benefit-cost ratios (including, but not limited to, road and pavement maintenance, comprehensive cycle networks, and the decarbonisation and expansion of public transport networks). Therefore the opportunity cost of pursuing a fixed link ahead of these more deserving options is prohibitive.

As such, we are not persuaded of the need for a fixed link.

Nevertheless, should the UK Government nonetheless decide to proceed with a fixed link, we offer the following comments:

(a) Any fixed link concept must at least include rail, if not be entirely rail-based (similar to the Channel Tunnel). At present, whether it be a bridge, tunnel, or combination thereof is irrelevant. That question comes after demand, cost and environmental impact is considered. We noted above our significant doubts about passenger demand.

(b) A rail-only link (even if including car/lorry shuttles) would be cheaper than a road or road & rail option. However, we suspect that the speculative estimates omit the cost of connecting any kind of fixed link to existing road/rail networks.

The widespread assumption is that any fixed link would be built between south-west Scotland and Northern Ireland, as this is the shortest distance. However, it is not clear that this is where potential travel demand is greatest. There is therefore a conflict between demand and engineering practicality.

This is the opposite of the case with the Channel Tunnel or the Oresund link, which are often cited as comparable projects. It also ignores the point that, in transport planning terms, it may be best to assess:

- whether a site in the Republic of Ireland would provide a better western landfall
- a focus on freight may be more relevant.

So the evidence points toward consideration of maritime options, although it appears there is much more data to gather on ferries, which, though important, are often overlooked in the UK. The dispersed nature of freight and passenger demand between the UK and Irish mainlands indicates that a single link would be insufficient. Current ferry timetables indicate typical journey times as follows:

- Cairnryan-Belfast/Larne; 2hrs
- Liverpool-Dublin and Belfast; 8 hrs
- Holyhead-Dublin; 3 hrs

This suggests that Liverpool is not attractive for passengers, but may suit freight if it is not time-critical; whereas journey times from Holyhead and Cairnryan are adequate for passengers and freight. Clearly it is connectivity to and from the ports which offers most potential for major improvements.

We would support proposals to enhance rail connectivity to/from Holyhead (passenger and freight) and Liverpool (freight), but the detail, and other public transport, is best promoted by those who are closer. For Scotland, the issue is how to get passengers and freight to and from Cairnryan. This clearly involves considering improvements to the Ayr-Stranraer railway, and the 'Glasgow South West' route as an alternative to the WCML north of Carlisle. Perhaps the capability of an upgraded Settle-Carlisle route should also be considered, and even a modern equivalent of Stranraer-Carlisle. The review also asks about links 'in the context of the UK's departure from the EU'. At the time of writing, this has not been finalised. Nevertheless, it is clear that any likely scenario will add financial and convenience costs onto travel between mainland UK and the island of Ireland.

Q10: Other than geographic, are there any other specific restrictions to improving connectivity between Northern Ireland and other UK nations?

See above.

Final questions

Q11: What else can be done to support greater transport connectivity between the nations of the UK?

Our comments have focused mainly on physical and material issues, partly because the questions led towards that. However, the Review needs to consider what are sometimes called 'soft issues' such as convenience, attractiveness, ticketing, information etc. We referred to physical connectivity above, but passengers equally need a 'seamless journey'.

We do not expand on this point, because it is documented very extensively elsewhere. However, it is acted on less often. So, rather than re-examine the issue, the Review might more productively consider how to address the gap between theory and practice.

Q12: Do you have any further comments?

We must refer to the comments made by the Cabinet Secretary for Transport, Infrastructure and Connectivity in the Scottish Parliament on 18 November 2020 regarding the Union Connectivity Review.

He noted that transport infrastructure is a devolved matter, and investment decisions will be taken by the Scottish Government.

This process was set up by the UK Government, as far as we know without the involvement of the devolved Governments, and it will make recommendations in areas that are the Scottish Government's responsibility. We understand that concerns have been set out in a joint letter from the Scottish and Welsh governments and the Northern Ireland Executive.

We share a view that the process by which the Union Connectivity Review was established was seriously flawed; indeed it perhaps reflects some of the points we have made. That is not to criticise the chair of the review, who we recognise is a highly respected authority in the transport field. However, a little more forethought on the part of those who commissioned the review could have made it much more productive.

Nevertheless, the Review has requested submissions, and it is in that spirit that we have made ours above.

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1 Transport Scotland reports that the total volume of passengers carried on ferries between Scotland and Northern Ireland in 2018 was 1,750,000. (Source: https://www.transport.gov.scot/publication/scottish-transport-statistics-no-38-2019-edition/chapter-9-water-transport/#tb913a) Data published by the CAA suggests that the total air passenger traffic between the Belfast airports and Scottish airports (Aberdeen, Edinburgh, Glasgow, Inverness & Wick) in 2019 was 989,610. (Source: https://www.caa.co.uk/uploadedFiles/CAA/Content/Standard_Content/Data_and_analysis/Datasets/Airport_stats/Airport_data_2019_annual/Table_12_2_Domestic_Air_Pax_Traffic_Route_Analysis.pdf)

2 Same source as above.

3 According to '2008 Monthly Airport Data' data set available at <https://www.caa.co.uk/Data-and-analysis/UK-aviation-market/Airports/Datasets/UK-Airport-data/Airport-data-1990-onwards/>, the total air passenger traffic between the Belfast airports and Scottish airports (Aberdeen, Dundee, Edinburgh, Glasgow, Inverness & Prestwick) in 2008 was 827,857.

4 A decline of 26,247. Given the evident rounding in the ferry passenger statistics, this is probably within margin for error. However, it is a decline — and is certainly establishes no growth in this travel market over this period.

5 We would accept that some of this may be due to consolidation of transport services rather than a reduction in travel demand *per se*.

6 We would highlight our own 'Ayr-Stranraer rail regeneration study' (2009), available at <https://archive2015.transform.scot/site/ayr-stranraer-rail-regeneration.aspx.html>.